

SEQUENCE LISTING

(1) GENERAL INFORMATION:

T,4150
N
(i) APPLICANT: Bolognesi, Dani P.
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(ii) TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR INHIBITION
OF MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING HIV
TRANSMISSION

(iii) NUMBER OF SEQUENCES: 273

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(v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: Floppy disk
(B) COMPUTER: IBM PC compatible
(C) OPERATING SYSTEM: PC-DOS/MS-DOS
(D) SOFTWARE: PatentIn Release #1.0, Version #1.30

(vi) CURRENT APPLICATION DATA:

(A) APPLICATION NUMBER: US 08/470,896
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(C) CLASSIFICATION:

(viii) ATTORNEY/AGENT INFORMATION:

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(2) INFORMATION FOR SEQ ID NO:1:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 36 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

Tyr Thr Ser Leu Ile His Ser Leu Ile Glu Glu Ser Gln Asn Gln Gln
1 5 10 15

Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu
20 25 30

Trp Asn Trp Phe
35

(2) INFORMATION FOR SEQ ID NO:2:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

Ser Ser Glu Ser Phe Thr Leu Leu Glu Gln Trp Asn Asn Trp Lys Leu
1 5 10 15

Gln Leu Ala Glu Gln Trp Leu Glu Gln Ile Asn Glu Lys His Tyr Leu
20 25 30

Glu Asp Ile Ser
35

(2) INFORMATION FOR SEQ ID NO:3:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

Tyr Thr Asn Thr Ile Tyr Thr Leu Leu Glu Glu Ser Gln Asn Gln Gln
1 5 10 15

Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu
20 25 30

Trp Asn Trp Phe
35

(2) INFORMATION FOR SEQ ID NO:4:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

Tyr Thr Gly Ile Ile Tyr Asn Leu Leu Glu Glu Ser Gln Asn Gln Gln
1 5 10 15
Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Asn Leu
20 25 30
Trp Asn Trp Phe
35

(2) INFORMATION FOR SEQ ID NO:5:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

Tyr Thr Ser Leu Ile Tyr Ser Leu Leu Glu Lys Ser Gln Thr Gln Gln
1 5 10 15
Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu
20 25 30
Trp Asn Trp Phe
35

(2) INFORMATION FOR SEQ ID NO:6:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

Leu Glu Ala Asn Ile Ser Lys Ser Leu Glu Gln Ala Gln Ile Gln Gln
1 5 10 15
Glu Lys Asn Met Tyr Glu Leu Gln Lys Leu Asn Ser Trp Asp Ile Phe
20 25 30
Gly Asn Trp Phe
35

(2) INFORMATION FOR SEQ ID NO:7:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

Leu	Glu	Ala	Asn	Ile	Ser	Gln	Ser	Leu	Glu	Gln	Ala	Gln	Ile	Gln	Gln
1					5				10						15
Glu	Lys	Asn	Met	Tyr	Glu	Leu	Gln	Lys	Leu	Asn	Ser	Trp	Asp	Val	Phe
			20					25					30		
Thr	Asn	Trp	Leu												
			35												

(2) INFORMATION FOR SEQ ID NO:8:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 41 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

Cys	Gly	Gly	Asn	Asn	Leu	Leu	Arg	Ala	Ile	Glu	Ala	Gln	Gln	His	Leu
1					5				10						15
Leu	Gln	Leu	Thr	Val	Trp	Gly	Ile	Lys	Gln	Leu	Gln	Ala	Arg	Ile	Leu
			20					25					30		
Ala	Val	Glu	Arg	Tyr	Leu	Lys	Asp	Gln							
		35				40									

(2) INFORMATION FOR SEQ ID NO:9:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 17 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

Leu	Gln	Ala	Arg	Ile	Leu	Ala	Val	Glu	Arg	Tyr	Leu	Lys	Asp	Gln	Gln
1					5				10						15
Gln															

(2) INFORMATION FOR SEQ ID NO:10:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 38 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:

- (D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

Gln Gln Leu Leu Asp Val Val Lys Arg Gln Gln Glu Met Leu Arg Leu
1 5 10 15
Thr Val Trp Gly Thr Lys Asn Leu Gln Ala Arg Val Thr Ala Ile Glu
20 25 30
Lys Tyr Leu Lys Asp Gln
35

(2) INFORMATION FOR SEQ ID NO:11:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

ATGACGCTGA CGGTACAGGC C

21

(2) INFORMATION FOR SEQ ID NO:12:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 33 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:

TGACTAACGCT TAATACCACA GCCAATTGT TAT

33

(2) INFORMATION FOR SEQ ID NO:13:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:

GGAGCTGCTT GGGGCCAG AC

22

(2) INFORMATION FOR SEQ ID NO:14:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 40 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:

CCAAATCCCC AGGAGCTGCT CGAGCTGCAC TATACCAGAC

40

(2) INFORMATION FOR SEQ ID NO:15:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:

ATAGCTTCTA GATTAATTGT TAATTCTCT GTCCC

35

(2) INFORMATION FOR SEQ ID NO:16:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 48 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
(B) LOCATION: 48
(D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:

F

Tyr	Thr	Ser	Val	Ile	Thr	Ile	Glu	Leu	Ser	Asn	Ile	Lys	Glu	Asn	Lys
1															15
Cys	Asn	Gly	Thr	Asp	Ala	Lys	Val	Lys	Leu	Ile	Lys	Gln	Glu	Leu	Asp
															30
Lys	Tyr	Lys	Asn	Ala	Val	Thr	Glu	Leu	Gln	Leu	Leu	Met	Gln	Ser	Thr
															45

(2) INFORMATION FOR SEQ ID NO:17:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 37 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

- (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 1
 - (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

- (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 48
 - (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:

Phe	Tyr	Asp	Pro	Leu	Val	Phe	Pro	Ser	Asp	Glu	Phe	Asp	Ala	Ser	Ile
1															15
Ser	Gln	Val	Asn	Glu	Lys	Ile	Asn	Gln	Ser	Leu	Ala	Phe	Ile	Arg	Lys
															30
Ser	Asp	Glu	Leu	Leu											

(2) INFORMATION FOR SEQ ID NO:18:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 35 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

- (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 1
 - (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a

9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:

Ile Thr Leu Asn Asn Ser Val Ala Leu Asp Pro Ile Asp Ile Ser Ile
1 5 10 15

Glu Leu Asn Lys Ala Lys Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile
20 25 30

Arg Arg Ser
35

(2) INFORMATION FOR SEQ ID NO:19:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 34 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:19:

Ala Leu Gly Val Ala Thr Ser Ala Gln Ile Thr Ala Ala Val Ala Leu
1 5 10 15

Val Glu Ala Lys Gln Ala Arg Ser Asp Ile Glu Lys Leu Lys Glu Ala
20 25 30

Ile Arg

(2) INFORMATION FOR SEQ ID NO:20:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 33 amino acids

- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:20:

Val Ala Val Ser Lys Val Leu His Leu Glu Gly Glu Val Asn Lys Ile
1 5 10 15

Ala Leu Leu Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn Gly Val
20 25 30

Ser

(2) INFORMATION FOR SEQ ID NO:21:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 33 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:21:

Ala Val Ser Lys Val Leu His Leu Glu Gly Glu Val Asn Lys Ile Ala
1 5 10 15

Leu Leu Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn Gly Val Ser
20 25 30

Val

(2) INFORMATION FOR SEQ ID NO:22:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 33 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:22:

Val Ser Lys Val Leu His Leu Glu Gly Glu Val Asn Lys Ile Ala Leu
1 5 10 15

Leu Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn Gly Val Ser Val
20 25 30

Leu

(2) INFORMATION FOR SEQ ID NO:23:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 33 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular

carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:23:

Ser Lys Val Leu His Leu Glu Gly Glu Val Asn Lys Ile Ala Leu Leu
1 5 10 15

Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn Gly Val Ser Val Leu
20 25 30

Thr

(2) INFORMATION FOR SEQ ID NO:24:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 33 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:24:

Lys Val Leu His Leu Glu Gly Glu Val Asn Lys Ile Ala Leu Leu Ser
1 5 10 15

Thr Asn Lys Ala Val Val Ser Leu Ser Asn Gly Val Ser Val Leu Thr
20 25 30

Ser

(2) INFORMATION FOR SEQ ID NO:25:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 33 amino acids
- (B) TYPE: amino acid

- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:25:

Leu	Glu	Gly	Glu	Val	Asn	Lys	Ile	Ala	Leu	Leu	Ser	Thr	Asn	Lys	Ala
1					5				10					15	
Val	Val	Ser	Leu	Ser	Asn	Gly	Val	Ser	Val	Leu	Thr	Ser	Lys	Val	Leu
					20			25					30		

Asp

(2) INFORMATION FOR SEQ ID NO:26:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 33 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:26:

Gly Glu Val Asn Lys Ile Ala Leu Leu Ser Thr Asn Lys Ala Val Val

1

5

10

15

Ser Leu Ser Asn Gly Val Ser Val Leu Thr Ser Lys Val Leu Asp Leu
20 25 30

Lys

(2) INFORMATION FOR SEQ ID NO:27:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 33 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:27:

Glu Val Asn Lys Ile Ala Leu Leu Ser Thr Asn Lys Ala Val Val Ser
1 5 10 15

Leu Ser Asn Gly Val Ser Val Leu Thr Ser Lys Val Leu Asp Leu Lys
20 25 30

Asn

(2) INFORMATION FOR SEQ ID NO:28:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 33 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:28:

Val Asn Lys Ile Ala Leu Leu Ser Thr Asn Lys Ala Val Val Ser Leu
1 5 10 15

Ser Asn Gly Val Ser Val Leu Thr Ser Lys Val Leu Asp Leu Lys Asn
20 25 30

Tyr

(2) INFORMATION FOR SEQ ID NO:29:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 33 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:29:

Asn Lys Ile Ala Leu Leu Ser Thr Asn Lys Ala Val Val Ser Leu Ser
1 5 10 15

Asn Gly Val Ser Val Leu Thr Ser Lys Val Leu Asp Leu Lys Asn Tyr
20 25 30

Ile

(2) INFORMATION FOR SEQ ID NO:30:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 33 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:30:

Lys Ile Ala Leu Leu Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn
1 5 10 15

Gly Val Ser Val Leu Thr Ser Lys Val Leu Asp Leu Lys Asn Tyr Ile
20 25 30

Asp

(2) INFORMATION FOR SEQ ID NO:31:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 33 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:31:

Ile Ala Leu Leu Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn Gly
1 5 10 15

Val Ser Val Leu Thr Ser Lys Val Leu Asp Leu Lys Asn Tyr Ile Asp

Lys**(2) INFORMATION FOR SEQ ID NO:32:****(i) SEQUENCE CHARACTERISTICS:**

- (A) LENGTH: 33 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide**(ix) FEATURE:**

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:32:

Ala	Leu	Leu	Ser	Thr	Asn	Lys	Ala	Val	Val	Ser	Leu	Ser	Asn	Gly	Val
1						5				10				15	

Ser	Val	Leu	Thr	Ser	Lys	Val	Leu	Asp	Leu	Lys	Asn	Tyr	Ile	Asp	Lys
					20				25				30		

Gln**(2) INFORMATION FOR SEQ ID NO:33:****(i) SEQUENCE CHARACTERISTICS:**

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide**(ix) FEATURE:**

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site

(B) LOCATION: 48
(D) OTHER INFORMATION: /label= B
/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:33:

Thr	Leu	Asn	Asn	Ser	Val	Ala	Leu	Asp	Pro	Ile	Asp	Ile	Ser	Ile	Glu
1				5					10						15
Leu	Asn	Lys	Ala	Lys	Ser	Asp	Leu	Glu	Glu	Ser	Lys	Glu	Trp	Ile	Arg
		20						25					30		
Arg	Ser	Asn													
		35													

(2) INFORMATION FOR SEQ ID NO:34:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

- (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

- (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 48
(D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:34:

Leu	Asn	Asn	Ser	Val	Ala	Leu	Asp	Pro	Ile	Asp	Ile	Ser	Ile	Glu	Leu
1				5					10						15
Asn	Lys	Ala	Lys	Ser	Asp	Leu	Glu	Glu	Ser	Lys	Glu	Trp	Ile	Arg	Arg
		20						25				30			
Ser	Asn	Gln													
		35													

(2) INFORMATION FOR SEQ ID NO:35:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:35:

Asn Asn Ser Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Glu Leu Asn
1 5 10 15

Lys Ala Lys Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser
20 25 30

Asn Gln Lys
35

(2) INFORMATION FOR SEQ ID NO:36:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:36:

Asn Ser Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Glu Leu Asn Lys
1 5 10 15

Ala Lys Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn
20 25 30

Gln Lys Leu
35

(2) INFORMATION FOR SEQ ID NO:37:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

- (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

- (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 48
(D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:37:

Ser	Val	Ala	Leu	Asp	Pro	Ile	Asp	Ile	Ser	Ile	Glu	Leu	Asn	Lys	Ala
1									10						15
Lys	Ser	Asp	Leu	Glu	Glu	Ser	Lys	Glu	Trp	Ile	Arg	Arg	Ser	Asn	Gln
			20					25						30	
Lys	Leu	Asp													
			35												

(2) INFORMATION FOR SEQ ID NO:38:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

- (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

- (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 48
(D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:38:

Val	Ala	Leu	Asp	Pro	Ile	Asp	Ile	Ser	Ile	Glu	Leu	Asn	Lys	Ala	Lys
1					5				10					15	
Ser	Asp	Leu	Glu	Glu	Ser	Lys	Glu	Trp	Ile	Arg	Arg	Ser	Asn	Gln	Lys
		20					25						30		
Leu	Asp	Ser													
		35													

(2) INFORMATION FOR SEQ ID NO:39:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:39:

Ala	Leu	Asp	Pro	Ile	Asp	Ile	Ser	Ile	Glu	Leu	Asn	Lys	Ala	Lys	Ser
1					5				10				15		
Asp	Leu	Glu	Glu	Ser	Lys	Glu	Trp	Ile	Arg	Arg	Ser	Asn	Gln	Lys	Leu
		20				25							30		
Asp	Ser	Ile													
		35													

(2) INFORMATION FOR SEQ ID NO:40:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:40:

Leu	Asp	Pro	Ile	Asp	Ile	Ser	Ile	Glu	Leu	Asn	Lys	Ala	Lys	Ser	Asp
1					5				10					15	
Leu	Glu	Glu	Ser	Lys	Glu	Trp	Ile	Arg	Arg	Ser	Asn	Gln	Lys	Leu	Asp
	20						25						30		
Ser	Ile	Gly													
		35													

(2) INFORMATION FOR SEQ ID NO:41:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:41:

Asp	Pro	Ile	Asp	Ile	Ser	Ile	Glu	Leu	Asn	Lys	Ala	Lys	Ser	Asp	Leu
1						5								15	
Glu	Glu	Ser	Lys	Glu	Trp	Ile	Arg	Arg	Ser	Asn	Gln	Lys	Leu	Asp	Ser
	20					25						30			
Ile	Gly	Asn													

(2) INFORMATION FOR SEQ ID NO:42:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 35 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

- (ix) FEATURE:
- (A) NAME/KEY: Modified-site
 - (B) LOCATION: 1
 - (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

- (ix) FEATURE:
- (A) NAME/KEY: Modified-site
 - (B) LOCATION: 48
 - (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:42:

Pro	Ile	Asp	Ile	Ser	Ile	Glu	Leu	Asn	Lys	Ala	Ser	Asp	Leu	Glu	
1															15
Glu	Ser	Lys	Glu	Trp	Ile	Arg	Arg	Ser	Asn	Gln	Lys	Leu	Asp	Ser	Ile
															30
Gly	Asn	Trp													
		35													

(2) INFORMATION FOR SEQ ID NO:43:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 35 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

- (ix) FEATURE:
- (A) NAME/KEY: Modified-site
 - (B) LOCATION: 1
 - (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

- (ix) FEATURE:
- (A) NAME/KEY: Modified-site
 - (B) LOCATION: 48
 - (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl

group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:43:

Ile	Asp	Ile	Ser	Ile	Glu	Leu	Asn	Lys	Ala	Lys	Ser	Asp	Leu	Glu	Glu
1				5				10						15	
Ser	Lys	Glu	Trp	Ile	Arg	Arg	Ser	Asn	Gln	Lys	Leu	Asp	Ser	Ile	Gly
	20						25						30		
Asn	Trp	His													
		35													

(2) INFORMATION FOR SEQ ID NO:44:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:44:

Asp	Ile	Ser	Ile	Glu	Leu	Asn	Lys	Ala	Lys	Ser	Asp	Leu	Glu	Ser	
1				5				10					15		
Lys	Glu	Trp	Ile	Arg	Arg	Ser	Asn	Gln	Lys	Leu	Asp	Ser	Ile	Gly	Asn
	20					25						30			
Trp	His	Gln													
		35													

(2) INFORMATION FOR SEQ ID NO:45:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION: /label= A
/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 48
(D) OTHER INFORMATION: /label= B
/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:45:

Ile	Ser	Ile	Glu	Leu	Asn	Lys	Ala	Lys	Ser	Asp	Leu	Glu	Glu	Ser	Lys
1				5					10					15	
Glu	Trp	Ile	Arg	Arg	Ser	Asn	Gln	Lys	Leu	Asp	Ser	Ile	Gly	Asn	Trp
		20					25					30			
His	Gln	Ser													
		35													

(2) INFORMATION FOR SEQ ID NO:46:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 48
(D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:46:

Ser	Ile	Glu	Leu	Asn	Lys	Ala	Lys	Ser	Asp	Leu	Glu	Glu	Ser	Lys	Glu
1				5				10					15		
Trp	Ile	Arg	Arg	Ser	Asn	Gln	Lys	Leu	Asp	Ser	Ile	Gly	Asn	Trp	His
		20				25					30				
Gln	Ser	Ser													
		35													

(2) INFORMATION FOR SEQ ID NO:47:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 35 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:47:

Ile Glu Leu Asn Lys Ala Lys Ser Asp Leu Glu Glu Ser Lys Glu Trp
1 5 10 15

Ile Arg Arg Ser Asn Gln Lys Leu Asp Ser Ile Gly Asn Trp His Gln
20 25 30

Ser Ser Thr
35

(2) INFORMATION FOR SEQ ID NO:48:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 35 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:48:

Glu Leu Asn Lys Ala Lys Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile
1 5 10 15
Arg Arg Ser Asn Gln Lys Leu Asp Ser Ile Gly Asn Trp His Gln Ser
20 25 30
Ser Thr Thr
35

(2) INFORMATION FOR SEQ ID NO:49:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:49:

Thr Ala Ala Val Ala Leu Val Glu Ala Lys Gln Ala Arg Ser Asp Ile
1 5 10 15
Glu Lys Leu Lys Glu Ala Ile Arg Asp Thr Asn Lys Ala Val Gln Ser
20 25 30
Val Gln Ser
35

(2) INFORMATION FOR SEQ ID NO:50:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:50:

Ala	Val	Ala	Leu	Val	Glu	Ala	Lys	Gln	Ala	Arg	Ser	Asp	Ile	Glu	Lys
1				5					10					15	
Leu	Lys	Glu	Ala	Ile	Arg	Asp	Thr	Asn	Lys	Ala	Val	Gln	Ser	Val	Gln
				20				25					30		
Ser	Ser	Ile													
		35													

(2) INFORMATION FOR SEQ ID NO:51:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:51:

Leu	Val	Glu	Ala	Lys	Gln	Ala	Arg	Ser	Asp	Ile	Glu	Lys	Leu	Lys	Glu
1				5					10				15		
Ala	Ile	Arg	Asp	Thr	Asn	Lys	Ala	Val	Gln	Ser	Val	Gln	Ser	Ser	Ile
				20				25				30			
Gly	Asn	Leu													
		35													

(2) INFORMATION FOR SEQ ID NO:52:

F

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

- (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

- (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 48
(D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:52:

Val	Glu	Ala	Lys	Gln	Ala	Arg	Ser	Asp	Ile	Glu	Lys	Leu	Lys	Glu	Ala
1				5					10					15	
Ile	Arg	Asp	Thr	Asn	Lys	Ala	Val	Gln	Ser	Val	Gln	Ser	Ser	Ile	Gly
	20						25						30		
Asn	Leu	Ile													
	35														

(2) INFORMATION FOR SEQ ID NO:53:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

- (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

- (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 48
(D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:53:

Glu Ala Lys Gln Ala Arg Ser Asp Ile Glu Lys Leu Lys Glu Ala Ile
1 5 10 15
Arg Asp Thr Asn Lys Ala Val Gln Ser Val Gln Ser Ser Ile Gly Asn
20 25 30
Leu Ile Val
35

(2) INFORMATION FOR SEQ ID NO:54:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

- (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

- (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 48
(D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:54:

Ala Lys Gln Ala Arg Ser Asp Ile Glu Lys Leu Lys Glu Ala Ile Arg
1 5 10 15
Asp Thr Asn Lys Ala Val Gln Ser Val Gln Ser Ser Ile Gly Asn Leu
20 25 30
Ile Val Ala
35

(2) INFORMATION FOR SEQ ID NO:55:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

- (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group,

a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:55:

Lys Gln Ala Arg Ser Asp Ile Glu Lys Leu Lys Glu Ala Ile Arg Asp
1 5 10 15

Thr Asn Lys Ala Val Gln Ser Val Gln Ser Ser Ile Gly Asn Leu Ile
20 25 30

Val Ala Ile
35

(2) INFORMATION FOR SEQ ID NO:56:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:56:

Gln Ala Arg Ser Asp Ile Glu Lys Leu Lys Glu Ala Ile Arg Asp Thr
1 5 10 15

Asn Lys Ala Val Gln Ser Val Gln Ser Ser Ile Gly Asn Leu Ile Val
20 25 30

Ala Ile Lys
35

(2) INFORMATION FOR SEQ ID NO:57:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:57:

Ala Arg Ser Asp Ile Glu Lys Leu Lys Glu Ala Ile Arg Asp Thr Asn
1 5 10 15

Lys Ala Val Gln Ser Val Gln Ser Ser Ile Gly Asn Leu Ile Val Ala
20 25 30

Ile Lys Ser
35

(2) INFORMATION FOR SEQ ID NO:58:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:58:

Arg Ser Asp Ile Glu Lys Leu Lys Glu Ala Ile Arg Asp Thr Asn Lys
1 5 10 15
Ala Val Gln Ser Val Gln Ser Ser Ile Gly Asn Leu Ile Val Ala Ile
20 25 30
Lys Ser Val
35

(2) INFORMATION FOR SEQ ID NO:59:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:59:

Ser Asp Ile Glu Lys Leu Lys Glu Ala Ile Arg Asp Thr Asn Lys Ala
1 5 10 15
Val Gln Ser Val Gln Ser Ser Ile Gly Asn Leu Ile Val Ala Ile Lys
20 25 30
Ser Val Gln
35

(2) INFORMATION FOR SEQ ID NO:60:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular

carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:60:

Lys	Leu	Lys	Glu	Ala	Ile	Arg	Asp	Thr	Asn	Lys	Ala	Val	Gln	Ser	Val
1				5					10						15
Gln	Ser	Ser	Ile	Gly	Asn	Leu	Ile	Val	Ala	Ile	Lys	Ser	Val	Gln	Asp
	20					25					30				
Tyr	Val	Asn													
		35													

(2) INFORMATION FOR SEQ ID NO:61:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:61:

Leu	Lys	Glu	Ala	Ile	Arg	Asp	Thr	Asn	Lys	Ala	Val	Gln	Ser	Val	Gln
1				5					10						15
Ser	Ser	Ile	Gly	Asn	Leu	Ile	Val	Ala	Ile	Lys	Ser	Val	Gln	Asp	Tyr
	20				25					30					
Val	Asn	Lys													
		35													

(2) INFORMATION FOR SEQ ID NO:62:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid

- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:62:

Ala	Ile	Arg	Asp	Thr	Asn	Lys	Ala	Val	Gln	Ser	Val	Gln	Ser	Ser	Ile
1					5				10						15
Gly	Asn	Leu	Ile	Val	Ala	Ile	Lys	Ser	Val	Gln	Asp	Tyr	Val	Asn	Lys
				20				25					30		
Glu	Ile	Val													
		35													

(2) INFORMATION FOR SEQ ID NO:63:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:63:

Trp Gln Glu Trp Glu Arg Lys Val Asp Phe Leu Glu Glu Asn Ile Thr

1

5

10

15

Ala Leu Leu Glu Glu Ala Gln Ile Gln Gln Glu Lys Asn Met Tyr Glu
20 25 30

Leu Gln Lys
35

(2) INFORMATION FOR SEQ ID NO:64:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:64:

Gln Glu Trp Glu Arg Lys Val Asp Phe Leu Glu Glu Asn Ile Thr Ala
1 5 10 15

Leu Leu Glu Glu Ala Gln Ile Gln Gln Glu Lys Asn Met Tyr Glu Leu
20 25 30

Gln Lys Leu
35

(2) INFORMATION FOR SEQ ID NO:65:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:65:

Glu	Trp	Glu	Arg	Lys	Val	Asp	Phe	Leu	Glu	Glu	Asn	Ile	Thr	Ala	Leu
1					5				10						15
Leu	Glu	Glu	Ala	Gln	Ile	Gln	Gln	Glu	Lys	Asn	Met	Tyr	Glu	Leu	Gln
					20			25						30	
Lys	Leu	Asn													
		35													

(2) INFORMATION FOR SEQ ID NO:66:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:66:

Trp	Glu	Arg	Lys	Val	Asp	Phe	Leu	Glu	Glu	Asn	Ile	Thr	Ala	Leu	Leu
1						5									15
Glu	Glu	Ala	Gln	Ile	Gln	Gln	Glu	Lys	Asn	Met	Tyr	Glu	Leu	Gln	Lys
					20			25						30	
Leu	Asn	Ser													
		35													

(2) INFORMATION FOR SEQ ID NO:67:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown



(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:67:

Glu Arg Lys Val Asp Phe Leu Glu Glu Asn Ile Thr Ala Leu Leu Glu
1 5 10 15

Glu Ala Gln Ile Gln Gln Glu Lys Asn Met Tyr Glu Leu Gln Lys Leu
20 25 30

Asn Ser Trp
35

(2) INFORMATION FOR SEQ ID NO:68:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:68:

Arg Lys Val Asp Phe Leu Glu Glu Asn Ile Thr Ala Leu Leu Glu Glu
1 5 10 15

Ala Gln Ile Gln Gln Glu Lys Asn Met Tyr Glu Leu Gln Lys Leu Asn

Ser Trp Asp
35

(2) INFORMATION FOR SEQ ID NO:69:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:69:

Lys	Val	Asp	Phe	Leu	Glu	Glu	Asn	Ile	Thr	Ala	Leu	Leu	Glu	Glu	Ala
1				5						10			15		

Gln	Ile	Gln	Gln	Glu	Lys	Asn	Met	Tyr	Glu	Leu	Gln	Lys	Leu	Asn	Ser
				20				25				30			

Trp Asp Val
35

(2) INFORMATION FOR SEQ ID NO:70:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site

(B) LOCATION: 48
(D) OTHER INFORMATION: /label= B
/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:70:

Val	Asp	Phe	Leu	Glu	Glu	Asn	Ile	Thr	Ala	Leu	Leu	Glu	Glu	Ala	Gln
1				5					10					15	
Ile	Gln	Gln	Glu	Lys	Asn	Met	Tyr	Glu	Leu	Gln	Lys	Leu	Asn	Ser	Trp
			20					25					30		
Asp	Val	Phe													
		35													

(2) INFORMATION FOR SEQ ID NO:71:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

- (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

- (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 48
(D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:71:

Asp	Phe	Leu	Glu	Glu	Asn	Ile	Thr	Ala	Leu	Leu	Glu	Glu	Ala	Gln	Ile
1				5					10					15	
Gln	Gln	Glu	Lys	Asn	Met	Tyr	Glu	Leu	Gln	Lys	Leu	Asn	Ser	Trp	Asp
			20					25				30			
Val	Phe	Gly													
		35													

(2) INFORMATION FOR SEQ ID NO:72:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:72:

Phe Leu Glu Glu Asn Ile Thr Ala Leu Leu Glu Glu Ala Gln Ile Gln
1 5 10 15

Gln Glu Lys Asn Met Tyr Glu Leu Gln Lys Leu Asn Ser Trp Asp Val
20 25 30

Phe Gly Asn
35

(2) INFORMATION FOR SEQ ID NO:73:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 34 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:73:

Leu His Arg Ile Asp Leu Gly Pro Pro Ile Ser Leu Glu Arg Leu Asp
1 5 10 15

Val Gly Thr Asn Leu Gly Asn Ala Ile Ala Lys Leu Glu Ala Lys Glu
20 25 30

Leu Leu

(2) INFORMATION FOR SEQ ID NO:74:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 34 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

- (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

- (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 48
(D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:74:

His Arg Ile Asp Leu Gly Pro Pro Ile Ser Leu Glu Arg Leu Asp Val
1 5 10 15

Gly Thr Asn Leu Gly Asn Ala Ile Ala Lys Leu Glu Ala Lys Glu Leu
20 25 30

Leu Glu

(2) INFORMATION FOR SEQ ID NO:75:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 34 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

- (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

- (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 48
(D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:75:

Arg	Ile	Asp	Leu	Gly	Pro	Pro	Ile	Ser	Leu	Glu	Arg	Leu	Asp	Val	Gly
1				5					10				15		
Thr	Asn	Leu	Gly	Asn	Ala	Ile	Ala	Lys	Leu	Glu	Ala	Lys	Glu	Leu	Leu
		20						25				30			
Glu Ser															

(2) INFORMATION FOR SEQ ID NO:76:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 34 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:76:

Ile	Asp	Leu	Gly	Pro	Pro	Ile	Ser	Leu	Glu	Arg	Leu	Asp	Val	Gly	Thr
1				5				10				15			
Asn	Leu	Gly	Asn	Ala	Ile	Ala	Lys	Leu	Glu	Ala	Lys	Glu	Leu	Leu	Glu
		20						25				30			
Ser Ser															

(2) INFORMATION FOR SEQ ID NO:77:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 34 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:77:

Asp Leu Gly Pro Pro Ile Ser Leu Glu Arg Leu Asp Val Gly Thr Asn
1 5 10 15

Leu Gly Asn Ala Ile Ala Lys Leu Glu Ala Lys Glu Leu Leu Glu Ser
20 25 30

Ser Asp

(2) INFORMATION FOR SEQ ID NO:78:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 34 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:78:

Leu Gly Pro Pro Ile Ser Leu Glu Arg Leu Asp Val Gly Thr Asn Leu
1 5 10 15

Gly Asn Ala Ile Ala Lys Leu Glu Ala Lys Glu Leu Leu Glu Ser Ser
20 25 30

Asp Gln

(2) INFORMATION FOR SEQ ID NO:79:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 34 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

- (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

- (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 48
(D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:79:

Gly	Pro	Pro	Ile	Ser	Leu	Glu	Arg	Leu	Asp	Val	Gly	Thr	Asn	Leu	Gly
1				5					10					15	
Asn	Ala	Ile	Ala	Lys	Leu	Glu	Ala	Lys	Glu	Leu	Leu	Glu	Ser	Ser	Asp
		20						25					30		
Gln	Ile														

(2) INFORMATION FOR SEQ ID NO:80:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 34 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

- (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

- (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 48
(D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl

group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:80:

Pro Pro Ile Ser Leu Glu Arg Leu Asp Val Gly Thr Asn Leu Gly Asn
1 5 10 15

Ala Ile Ala Lys Leu Glu Ala Lys Glu Leu Leu Glu Ser Ser Asp Gln
20 25 30

Ile Leu

(2) INFORMATION FOR SEQ ID NO:81:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 34 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:81:

Pro Ile Ser Leu Glu Arg Leu Asp Val Gly Thr Asn Leu Gly Asn Ala
1 5 10 15

Ile Ala Lys Leu Glu Ala Lys Glu Leu Leu Glu Ser Ser Asp Gln Ile
20 25 30

Leu Arg

(2) INFORMATION FOR SEQ ID NO:82:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 34 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION: /label= A
/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 48
(D) OTHER INFORMATION: /label= B
/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:82:

Ser Leu Glu Arg Leu Asp Val Gly Thr Asn Leu Gly Asn Ala Ile Ala
1 5 10 15

Lys Leu Glu Ala Lys Glu Leu Leu Glu Ser Ser Asp Gln Ile Leu Arg
20 25 30

Ser Met

(2) INFORMATION FOR SEQ ID NO:83:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 34 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION: /label= A

/note= "Preceeding this amino acid, there may be an amino group, a hydrophobic group, an acetyl group, a 9-fluorenylmethoxycarbonyl group, or a macromolecular carrier group."

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 48
(D) OTHER INFORMATION: /label= B

/note= "Following this amino acid, there may be a carboxyl group, an amido group, a T-butyloxycarbonyl group, or a macromolecular carrier group."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:83:

Leu Glu Arg Leu Asp Val Gly Thr Asn Leu Gly Asn Ala Ile Ala Lys
1 5 10 15

Leu Glu Ala Lys Glu Leu Leu Glu Ser Ser Asp Gln Ile Leu Arg Ser
20 25 30

Met Lys

(2) INFORMATION FOR SEQ ID NO:84:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:84:

Met	Lys	Gln	Leu	Glu	Asp	Lys	Val	Glu	Glu	Leu	Leu	Ser	Lys	Asn	Tyr
1				5				10					15		
His	Leu	Glu	Asn	Glu	Val	Ala	Arg	Leu	Lys	Lys	Leu				
				20				25							

(2) INFORMATION FOR SEQ ID NO:85:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:85:

Thr	Asp	Thr	Leu	Gln	Ala	Glu	Thr	Asp	Gln	Leu	Glu	Asp	Glu	Lys	Ser
1				5				10				15			
Ala	Leu	Gln	Thr	Glu	Ile	Ala	Asn	Leu	Leu	Lys	Glu				
				20				25							

(2) INFORMATION FOR SEQ ID NO:86:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:86:

Ile	Ala	Arg	Leu	Glu	Glu	Lys	Val	Lys	Thr	Leu	Lys	Ala	Gln	Asn	Ser
1				5				10				15			
Glu	Leu	Ala	Ser	Thr	Ala	Asn	Met	Leu	Arg	Glu	Gln				
				20				25							

(2) INFORMATION FOR SEQ ID NO:87:

- (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 28 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:87:

Glu	Gln	Lys	Leu	Ile	Ser	Glu	Glu	Asp	Leu	Leu	Glu	Lys	Arg	Arg	Glu
1				5					10				15		
Gln Leu Lys His Lys Leu Glu Gln Leu Arg Asn Ser															
20 25															

(2) INFORMATION FOR SEQ ID NO:88:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 28 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:88:

Ile	Glu	Lys	Thr	Asn	Glu	Lys	Phe	His	Gln	Ile	Glu	Lys	Glu	Phe	Ser
1				5					10				15		
Glu Val Glu Gly Arg Ile Gln Asp Leu Glu Lys Tyr															
20 25															

(2) INFORMATION FOR SEQ ID NO:89:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 38 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:89:

Asn	Asn	Leu	Leu	Arg	Ala	Ile	Glu	Ala	Gln	Gln	His	Leu	Leu	Gln	Leu
1				5					10				15		
Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu															
20 25 30															
Arg Tyr Leu Lys Asp Gln															
35															

(2) INFORMATION FOR SEQ ID NO:90:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 338 amino acids

(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:90:

Phe Leu Gly Phe Leu Gly Ala Ala Gly Ser Thr Met Gly Ala Arg Ser
1 5 10 15

Met Thr Leu Thr Val Gln Ala Arg Gln Leu Leu Ser Gly Ile Val Gln
20 25 30

Gln Gln Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu
35 40 45

Gln Leu Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala
50 55 60

Val Glu Arg Tyr Leu Lys Asp Gln Gln Leu Leu Gly Ile Trp Gly Cys
65 70 75 80

Ser Gly Lys Leu Ile Cys Thr Thr Ala Val Pro Trp Asn Ala Ser Trp
85 90 95

Ser Asn Lys Ser Leu Glu Gln Ile Trp Asn Asn Met Thr Trp Met Glu
100 105 110

Trp Asp Arg Glu Ile Asn Asn Tyr Thr Ser Leu Ile His Ser Leu Ile
115 120 125

Glu Glu Ser Gln Asn Gln Gln Glu Lys Asn Glu Gln Glu Leu Leu Glu
130 135 140

Leu Asp Lys Trp Ala Ser Leu Trp Asn Trp Phe Asn Ile Thr Asn Trp
145 150 155 160

Leu Trp Tyr Ile Lys Ile Phe Ile Met Ile Val Gly Gly Leu Val Gly
165 170 175

Leu Arg Ile Val Phe Ala Val Leu Ser Ile Val Asn Arg Val Arg Gln
180 185 190

Gly Tyr Ser Pro Leu Ser Phe Gln Thr His Leu Pro Thr Pro Arg Gly
195 200 205

Pro Asp Arg Pro Glu Gly Ile Glu Glu Gly Gly Glu Arg Asp Arg
210 215 220

Asp Arg Ser Ile Arg Leu Val Asn Gly Ser Leu Ala Leu Ile Trp Asp
225 230 235 240

Asp Leu Arg Ser Leu Cys Leu Phe Ser Tyr His Arg Leu Arg Asp Leu
245 250 255

Leu Leu Ile Val Thr Arg Ile Val Glu Leu Leu Gly Arg Arg Gly Trp
260 265 270

Glu Ala Leu Lys Tyr Trp Trp Asn Leu Leu Gln Tyr Trp Ser Gln Glu
275 280 285

Leu Lys Asn Ser Ala Val Ser Leu Leu Asn Ala Thr Ala Ile Ala Val
290 295 300

Ala Glu Gly Thr Asp Arg Val Ile Glu Val Val Gln Gly Ala Cys Arg
305 310 315 320
Ala Ile Arg His Ile Pro Arg Arg Ile Arg Gln Gly Leu Glu Arg Ile
325 330 335
Leu Leu

(2) INFORMATION FOR SEQ ID NO:91:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 437 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:91:

Phe Leu Gly Phe Leu Leu Gly Val Gly Ser Ala Ile Ala Ser Gly Val
1 5 10 15
Ala Val Ser Lys Val Leu His Leu Glu Gly Glu Val Asn Lys Ile Lys
20 25 30
Ser Ala Leu Leu Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn Gly
35 40 45
Val Ser Val Leu Thr Ser Lys Val Leu Asp Leu Lys Asn Tyr Ile Asp
50 55 60
Lys Gln Leu Leu Pro Ile Val Asn Lys Gln Ser Cys Ser Ile Ser Asn
65 70 75 80
Ile Glu Thr Val Ile Glu Phe Gln Gln Lys Asn Asn Arg Leu Leu Glu
85 90 95
Ile Thr Arg Glu Phe Ser Val Asn Ala Gly Val Thr Thr Pro Val Ser
100 105 110
Thr Met Leu Thr Asn Ser Glu Leu Leu Ser Leu Ile Asn Asp Met Pro
115 120 125
Ile Thr Asn Asp Gln Lys Lys Leu Met Ser Asn Asn Val Gln Ile Val
130 135 140
Arg Gln Gln Ser Tyr Ser Ile Met Ser Ile Ile Lys Glu Glu Val Leu
145 150 155 160
Ala Tyr Val Val Gln Leu Pro Leu Tyr Gly Val Ile Asp Thr Pro Cys
165 170 175
Trp Lys Leu His Thr Ser Pro Leu Cys Thr Thr Asn Thr Lys Glu Gly
180 185 190
Ser Asn Ile Cys Leu Thr Arg Thr Asp Arg Gly Trp Tyr Cys Asp Asn
195 200 205
Ala Gly Ser Val Ser Phe Phe Pro Gln Ala Glu Thr Cys Lys Val Gln
210 215 220
Ser Asn Arg Val Phe Cys Asp Thr Met Asn Ser Leu Thr Leu Pro Ser

225	230	235	240
Glu Ile Asn Leu Cys Asn Val Asp Ile Phe Asn Pro Lys Tyr Asp Cys			
245		250	255
Lys Ile Met Thr Ser Lys Thr Asp Val Ser Ser Ser Val Ile Thr Ser			
260	265	270	
Leu Gly Ala Ile Val Ser Cys Tyr Gly Lys Thr Lys Cys Thr Ala Ser			
275	280	285	
Asn Lys Asn Arg Gly Ile Ile Lys Thr Phe Ser Asn Gly Cys Asp Tyr			
290	295	300	
Val Ser Asn Lys Gly Met Asp Thr Val Ser Val Gly Asn Thr Leu Tyr			
305	310	315	320
Tyr Val Asn Lys Gln Glu Gly Lys Ser Leu Tyr Val Lys Gly Glu Pro			
325	330	335	
Ile Ile Asn Phe Tyr Asp Pro Leu Val Phe Pro Ser Asp Glu Phe Asp			
340	345	350	
Ala Ser Ile Ser Gln Val Asn Glu Lys Ile Asn Gln Ser Leu Ala Phe			
355	360	365	
Ile Arg Lys Ser Asp Glu Leu Leu His Asn Val Asn Ala Gly Lys Ser			
370	375	380	
Thr Thr Asn Ile Met Ile Thr Thr Ile Ile Ile Val Ile Ile Val Ile			
385	390	395	400
Leu Leu Ser Leu Ile Ala Val Gly Leu Leu Leu Tyr Cys Lys Ala Arg			
405	410	415	
Ser Thr Pro Val Thr Leu Ser Lys Asp Gln Leu Ser Gly Ile Asn Asn			
420	425	430	
Ile Ala Phe Ser Asn			
435			

(2) INFORMATION FOR SEQ ID NO:92:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 328 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:92:

Phe	Leu	Gly	Phe	Leu	Gly	Ala	Ala	Gly	Thr	Ala	Met	Gly	Ala	Ala	Ala
1				5			10			15					
Thr	Ala	Leu	Thr	Val	Gln	Ser	Gln	His	Leu	Leu	Ala	Gly	Ile	Leu	Gln
	20			25				30							
Gln	Gln	Lys	Asn	Leu	Leu	Ala	Ala	Val	Glu	Ala	Gln	Gln	Gln	Met	Leu
	35			40				45							
Lys	Leu	Thr	Ile	Trp	Gly	Val	Lys	Asn	Leu	Asn	Ala	Arg	Val	Thr	Ala
	50			55			60								

Leu Glu Lys Tyr Leu Glu Asp Gln Ala Arg Leu Asn Ala Trp Gly Cys
 65 70 75 80
 Ala Trp Lys Gln Val Cys His Thr Thr Val Pro Trp Gln Trp Asn Asn
 85 90 95
 Arg Thr Pro Asp Trp Asn Asn Met Thr Trp Leu Glu Trp Glu Arg Gln
 100 105 110
 Ile Ser Tyr Leu Glu Gly Asn Ile Thr Thr Gln Leu Glu Glu Ala Arg
 115 120 125
 Ala Gln Glu Glu Lys Asn Leu Asp Ala Tyr Gln Lys Leu Ser Ser Trp
 130 135 140
 Ser Asp Phe Trp Ser Trp Phe Asp Phe Ser Lys Trp Leu Asn Ile Leu
 145 150 155 160
 Lys Ile Gly Phe Leu Asp Val Leu Gly Ile Ile Gly Leu Arg Leu Leu
 165 170 175
 Tyr Thr Val Tyr Ser Cys Ile Ala Arg Val Arg Gln Gly Tyr Ser Pro
 180 185 190
 Leu Ser Pro Gln Ile His Ile His Pro Trp Lys Gly Gln Pro Asp Asn
 195 200 205
 Ala Glu Gly Pro Gly Glu Gly Gly Asp Lys Arg Lys Asn Ser Ser Glu
 210 215 220
 Pro Trp Gln Lys Glu Ser Gly Thr Ala Glu Trp Lys Ser Asn Trp Cys
 225 230 235 240
 Lys Arg Leu Thr Asn Trp Cys Ser Ile Ser Ser Ile Trp Leu Tyr Asn
 245 250 255
 Ser Cys Leu Thr Leu Leu Val His Leu Arg Ser Ala Phe Gln Tyr Ile
 260 265 270
 Gln Tyr Gly Leu Gly Glu Leu Lys Ala Ala Ala Gln Glu Ala Val Val
 275 280 285
 Ala Leu Ala Arg Leu Ala Gln Asn Ala Gly Tyr Gln Ile Trp Leu Ala
 290 295 300
 Cys Arg Ser Ala Tyr Arg Ala Ile Ile Asn Ser Pro Arg Arg Val Arg
 305 310 315 320
 Gln Gly Leu Glu Gly Ile Leu Asn
 325

(2) INFORMATION FOR SEQ ID NO:93:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 438 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:93:

Phe Ala Gly Val Val Leu Ala Gly Val Ala Leu Gly Val Ala Thr Ala

1	5	10	15												
Ala	Gln	Ile	Thr	Ala	Gly	Ile	Ala	Leu	His	Gln	Ser	Asn	Leu	Asn	Ala
				20				25					30		
Gln	Ala	Ile	Gln	Ser	Leu	Arg	Thr	Ser	Leu	Glu	Gln	Ser	Asn	Lys	Ala
			35				40					45			
Ile	Glu	Glu	Ile	Arg	Glu	Ala	Thr	Gln	Glu	Thr	Val	Ile	Ala	Val	Gln
			50				55				60				
Gly	Val	Gln	Asp	Tyr	Val	Asn	Asn	Glu	Leu	Val	Pro	Ala	Met	Gln	His
			65			70			75			80			
Met	Ser	Cys	Glu	Leu	Val	Gly	Gln	Arg	Leu	Gly	Leu	Arg	Leu	Leu	Arg
			85				90					95			
Tyr	Tyr	Thr	Glu	Leu	Leu	Ser	Ile	Phe	Gly	Pro	Ser	Leu	Arg	Asp	Pro
			100				105					110			
Ile	Ser	Ala	Glu	Ile	Ser	Ile	Gln	Ala	Leu	Ile	Tyr	Ala	Leu	Gly	Gly
			115				120				125				
Glu	Ile	His	Lys	Ile	Leu	Glu	Lys	Leu	Gly	Tyr	Ser	Gly	Ser	Asp	Met
			130				135				140				
Ile	Ala	Ile	Leu	Glu	Ser	Arg	Gly	Ile	Lys	Thr	Lys	Ile	Thr	His	Val
			145			150			155			160			
Asp	Leu	Pro	Gly	Lys	Phe	Ile	Ile	Leu	Ser	Ile	Ser	Tyr	Pro	Thr	Leu
			165				170					175			
Ser	Glu	Val	Lys	Gly	Val	Ile	Val	His	Arg	Leu	Glu	Ala	Val	Ser	Tyr
			180				185					190			
Asn	Ile	Gly	Ser	Gln	Glu	Trp	Tyr	Thr	Thr	Val	Pro	Arg	Tyr	Ile	Ala
			195			200					205				
Thr	Asn	Gly	Tyr	Leu	Ile	Ser	Asn	Phe	Asp	Glu	Ser	Ser	Cys	Val	Phe
			210				215				220				
Val	Ser	Glu	Ser	Ala	Ile	Cys	Ser	Gln	Asn	Ser	Leu	Tyr	Pro	Met	Ser
			225			230			235			240			
Pro	Leu	Leu	Gln	Gln	Cys	Ile	Arg	Gly	Asp	Thr	Ser	Ser	Cys	Ala	Arg
			245				250					255			
Thr	Leu	Val	Ser	Gly	Thr	Met	Gly	Asn	Lys	Phe	Ile	Leu	Ser	Lys	Gly
			260				265					270			
Asn	Ile	Val	Ala	Asn	Cys	Ala	Ser	Ile	Leu	Cys	Lys	Cys	Tyr	Ser	Thr
			275				280					285			
Ser	Thr	Ile	Ile	Asn	Gln	Ser	Pro	Asp	Lys	Leu	Leu	Thr	Phe	Ile	Ala
			290				295				300				
Ser	Asp	Thr	Cys	Pro	Leu	Val	Glu	Ile	Asp	Gly	Ala	Thr	Ile	Gln	Val
			305				310			315			320		
Gly	Gly	Arg	Gln	Tyr	Pro	Asp	Met	Val	Tyr	Glu	Gly	Lys	Val	Ala	Leu
			325				330					335			
Gly	Pro	Ala	Ile	Ser	Leu	Asp	Arg	Leu	Asp	Val	Gly	Thr	Asn	Leu	Gly
			340				345					350			
Asn	Ala	Leu	Lys	Lys	Leu	Asp	Asp	Ala	Lys	Val	Leu	Ile	Asp	Ser	Ser
			355				360					365			

Asn Gln Ile Leu Glu Thr Val Arg Arg Ser Ser Phe Asn Phe Gly Ser
 370 375 380
 Leu Leu Ser Val Pro Ile Leu Ser Cys Thr Ala Leu Ala Leu Leu Leu
 385 390 395 400
 Leu Ile Tyr Cys Cys Lys Arg Arg Tyr Gln Gln Thr Leu Lys Gln His
 405 410 415
 Thr Lys Val Asp Pro Ala Phe Lys Pro Asp Leu Thr Gly Thr Ser Lys
 420 425 430
 Ser Tyr Val Arg Ser Leu
 435

(2) INFORMATION FOR SEQ ID NO:94:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 436 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:94:

Phe Ile Gly Ala Ile Ile Gly Ser Val Ala Leu Gly Val Ala Thr Ala
 1 5 10 15
 Ala Gln Ile Thr Ala Ala Ser Ala Leu Ile Gln Ala Asn Gln Asn Ala
 20 25 30
 Ala Asn Ile Leu Arg Leu Lys Glu Ser Ile Thr Ala Thr Ile Glu Ala
 35 40 45
 Val His Glu Val Thr Asp Gly Leu Ser Gln Leu Ala Val Ala Val Gly
 50 55 60
 Lys Met Gln Gln Phe Val Asn Asp Gln Phe Asn Asn Thr Ala Gln Glu
 65 70 75 80
 Leu Asp Cys Ile Lys Ile Thr Gln Gln Val Gly Val Glu Leu Asn Leu
 85 90 95
 Tyr Leu Thr Glu Leu Thr Thr Val Phe Gly Pro Gln Ile Thr Ser Pro
 100 105 110
 Ala Leu Thr Gln Leu Thr Ile Gln Ala Leu Tyr Asn Ala Gly Gly Asn
 115 120 125
 Met Asp Tyr Leu Leu Thr Lys Leu Gly Val Gly Asn Asn Gln Leu Ser
 130 135 140
 Ser Leu Ile Gly Ser Gly Leu Ile Thr Gly Asn Pro Ile Leu Tyr Asp
 145 150 155 160
 Ser Gln Thr Gln Leu Leu Gly Ile Gln Val Thr Leu Pro Ser Val Gly
 165 170 175
 Asn Leu Asn Asn Met Arg Ala Thr Tyr Leu Glu Thr Leu Ser Val Ser
 180 185 190
 Thr Thr Lys Gly Phe Ala Ser Ala Leu Val Pro Lys Val Val Thr Gln

195

200

205

Val Gly Ser Val Ile Glu Glu Leu Asp Thr Ser Tyr Cys Ile Glu Thr
 210 215 220

Asp Leu Asp Leu Tyr Cys Thr Arg Ile Val Thr Phe Pro Met Ser Pro
 225 230 235 240

Gly Ile Tyr Ser Cys Leu Asn Gly Asn Thr Ser Ala Cys Met Tyr Ser
 245 250 255

Lys Thr Glu Gly Ala Leu Thr Thr Pro Tyr Met Thr Leu Lys Gly Ser
 260 265 270

Val Ile Ala Asn Cys Lys Met Thr Thr Cys Arg Cys Ala Asp Pro Pro
 275 280 285

Gly Ile Ile Ser Gln Asn Tyr Gly Glu Ala Val Ser Leu Ile Asp Arg
 290 295 300

His Ser Cys Asn Val Leu Ser Leu Asp Gly Ile Thr Leu Arg Leu Ser
 305 310 315 320

Gly Glu Phe Asp Ala Thr Tyr Gln Lys Asn Ile Ser Ile Leu Asp Ser
 325 330 335

Gln Val Ile Val Thr Gly Asn Leu Asp Ile Ser Thr Glu Leu Gly Asn
 340 345 350

Val Asn Asn Ser Ile Ser Asn Ala Leu Asp Lys Leu Glu Ser Asn
 355 360 365

Ser Lys Leu Asp Lys Val Asn Val Lys Leu Thr Ser Thr Ser Ala Leu
 370 375 380

Ile Thr Tyr Ile Ala Leu Thr Ala Ile Ser Leu Val Cys Gly Ile Leu
 385 390 395 400

Ser Leu Val Leu Ala Cys Tyr Leu Met Tyr Lys Gln Lys Ala Gln Gln
 405 410 415

Lys Thr Leu Leu Trp Leu Gly Asn Asn Thr Leu Gly Gln Met Arg Ala
 420 425 430

Thr Thr Lys Met
 435

(2) INFORMATION FOR SEQ ID NO:95:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 430 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

- (ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:95:

Phe Phe Gly Gly Val Ile Gly Thr Ile Ala Leu Gly Val Ala Thr Ser
 1 5 10 15

Ala Gln Ile Thr Ala Ala Val Ala Leu Val Glu Ala Lys Gln Ala Arg
 20 25 30

Ser Asp Ile Glu Lys Leu Lys Glu Ala Ile Arg Asp Thr Asn Lys Ala
 35 40 45
 Val Gln Ser Val Gln Ser Ser Ile Gly Asn Leu Ile Val Ala Ile Lys
 50 55 60
 Ser Val Gln Asp Tyr Val Asn Lys Glu Ile Val Pro Ser Ile Ala Arg
 65 70 75 80
 Leu Gly Cys Glu Ala Ala Gly Leu Gln Leu Gly Ile Ala Leu Thr Gln
 85 90 95
 His Tyr Ser Glu Leu Thr Asn Ile Phe Gly Asp Asn Ile Gly Ser Leu
 100 105 110
 Gln Glu Lys Gly Ile Lys Leu Gln Gly Ile Ala Ser Leu Tyr Arg Thr
 115 120 125
 Asn Ile Thr Glu Ile Phe Thr Thr Ser Thr Val Asp Lys Tyr Asp Ile
 130 135 140
 Tyr Asp Leu Leu Phe Thr Glu Ser Ile Lys Val Arg Val Ile Asp Val
 145 150 155 160
 Asp Leu Asn Asp Tyr Ser Ile Thr Leu Gln Val Arg Leu Pro Leu Leu
 165 170 175
 Thr Arg Leu Leu Asn Thr Gln Ile Tyr Arg Val Asp Ser Ile Ser Tyr
 180 185 190
 Asn Ile Gln Asn Arg Glu Trp Tyr Ile Pro Leu Pro Ser His Ile Met
 195 200 205
 Thr Lys Gly Ala Phe Leu Gly Gly Ala Asp Val Lys Glu Cys Ile Glu
 210 215 220
 Ala Phe Ser Ser Tyr Ile Cys Pro Ser Asp Pro Gly Phe Val Leu Asn
 225 230 235 240
 His Glu Met Glu Ser Cys Leu Ser Gly Asn Ile Ser Gln Cys Pro Arg
 245 250 255
 Thr Val Val Lys Ser Asp Ile Val Pro Arg Tyr Ala Phe Val Asn Gly
 260 265 270
 Gly Val Val Ala Asn Cys Ile Thr Thr Cys Thr Cys Asn Gly Ile
 275 280 285
 Gly Asn Arg Ile Asn Gln Pro Pro Asp Gln Gly Val Lys Ile Ile Thr
 290 295 300
 His Lys Glu Cys Asn Thr Ile Gly Ile Asn Gly Met Leu Phe Asn Thr
 305 310 315 320
 Asn Lys Glu Gly Thr Leu Ala Phe Tyr Thr Pro Asn Asp Ile Thr Leu
 325 330 335
 Asn Asn Ser Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Glu Leu Asn
 340 345 350
 Lys Ala Lys Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser
 355 360 365
 Asn Gln Lys Leu Asp Ser Ile Gly Asn Trp His Gln Ser Ser Thr Thr
 370 375 380
 Ile Ile Ile Val Leu Ile Met Ile Ile Ile Leu Phe Ile Ile Asn Val

385 390 395 400

Thr Ile Ile Ile Ile Ala Val Lys Tyr Tyr Arg Ile Gln Lys Arg Asn
405 410 415

Arg Val Asp Gln Asn Asp Lys Pro Tyr Val Leu Thr Asn Lys
420 425 430

(2) INFORMATION FOR SEQ ID NO:96:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 221 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:96:

Gly Leu Phe Gly Ala Ile Ala Gly Phe Ile Glu Asn Gly Trp Glu Gly
1 5 10 15

Met Ile Asp Gly Trp Tyr Gly Phe Arg His Gln Asn Ser Glu Gly Thr
20 25 30

Gly Gln Ala Ala Asp Leu Lys Ser Thr Gln Ala Ala Ile Asp Gln Ile
35 40 45

Asn Gly Lys Leu Asn Arg Val Ile Glu Lys Thr Asn Glu Lys Phe His
50 55 60

Gln Ile Glu Lys Glu Phe Ser Glu Val Glu Gly Arg Ile Gln Asp Leu
65 70 75 80

Glu Lys Tyr Val Glu Asp Thr Lys Ile Asp Leu Trp Ser Tyr Asn Ala
85 90 95

Glu Leu Leu Val Ala Leu Glu Asn Gln His Thr Ile Asp Leu Thr Asp
100 105 110

Ser Glu Met Asn Lys Leu Phe Glu Lys Thr Arg Arg Gln Leu Arg Glu
115 120 125

Asn Ala Glu Glu Met Gly Asn Gly Cys Phe Lys Ile Tyr His Lys Cys
130 135 140

Asp Asn Ala Cys Ile Glu Ser Ile Arg Asn Gly Thr Tyr Asp His Asp
145 150 155 160

Val Tyr Arg Asp Glu Ala Leu Asn Asn Arg Phe Gln Ile Lys Gly Val
165 170 175

Glu Leu Lys Ser Gly Tyr Lys Asp Trp Ile Leu Trp Ile Ser Phe Ala
180 185 190

Ile Ser Cys Phe Leu Leu Cys Val Val Leu Leu Gly Phe Ile Met Trp
195 200 205

Ala Cys Gln Arg Gly Asn Ile Arg Cys Asn Ile Cys Ile
210 215 220

(2) INFORMATION FOR SEQ ID NO:97:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 46 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:97:

Tyr Thr Ser Val Ile Thr Ile Glu Leu Ser Asn Ile Lys Glu Asn Lys
1 5 10 15
Cys Asn Gly Ala Lys Val Lys Leu Ile Lys Gln Glu Leu Asp Lys Tyr
20 25 30
Lys Asn Ala Val Thr Glu Leu Gln Leu Leu Met Gln Ser Thr
35 40 45

(2) INFORMATION FOR SEQ ID NO:98:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 54 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:98:

Ala Ser Gly Val Ala Val Ser Lys Val Leu His Leu Glu Gly Glu Val
1 5 10 15
Asn Lys Ile Ala Leu Leu Ser Thr Asn Lys Ala Val Val Ser Leu Ser
20 25 30
Asn Gly Val Ser Val Leu Thr Ser Lys Val Leu Asp Leu Lys Asn Tyr
35 40 45
Ile Asp Lys Gln Leu Leu
50

(2) INFORMATION FOR SEQ ID NO:99:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 53 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:99:

Gly Glu Pro Ile Ile Asn Phe Tyr Asp Pro Leu Val Phe Pro Ser Asp
1 5 10 15

F
472

Glu Phe Asp Ala Ser Ile Ser Gln Val Asn Glu Lys Ile Asn Gln Ser
20 25 30

Leu Ala Phe Ile Arg Lys Ser Asp Glu Leu Leu His Asn Val Asn Ala
35 40 45

Gly Lys Ser Thr Thr
50

(2) INFORMATION FOR SEQ ID NO:100:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 70 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:100:

Gly Thr Ile Ala Leu Gly Val Ala Thr Ser Ala Gln Ile Thr Ala Ala
1 5 10 15

Val Ala Leu Val Glu Ala Lys Gln Ala Arg Ser Asp Ile Glu Lys Leu
20 25 30

Lys Glu Ala Ile Arg Asp Thr Asn Lys Ala Val Gln Ser Val Gln Ser
35 40 45

Ser Ile Gly Asn Leu Ile Val Ala Ile Lys Ser Val Gln Asp Tyr Val
50 55 60

Asn Lys Glu Ile Val Pro
65 70

(2) INFORMATION FOR SEQ ID NO:101:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 56 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:101:

Tyr Thr Pro Asn Asp Ile Thr Leu Asn Asn Ser Val Ala Leu Asp Pro
1 5 10 15

Ile Asp Ile Ser Ile Glu Leu Asn Lys Ala Lys Ser Asp Leu Glu Glu
20 25 30

Ser Lys Glu Trp Ile Arg Arg Ser Asn Gln Lys Leu Asp Ser Ile Gly
35 40 45

Asn Trp His Gln Ser Ser Thr Thr
50 55

(2) INFORMATION FOR SEQ ID NO:102:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 249 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:102:

Arg Asn Lys Arg Gly Val Phe Val Leu Gly Phe Leu Gly Phe Leu Ala
1 5 10 15

Thr Ala Gly Ser Ala Met Gly Ala Ala Ser Xaa Xaa Xaa Xaa Ala Gln
20 25 30

Ser Arg Thr Leu Leu Ala Gly Ile Val Gln Gln Gln Gln Gln Leu Leu
35 40 45

Asp Val Val Lys Arg Gln Gln Glu Leu Leu Arg Leu Thr Val Trp Gly
50 55 60

Thr Lys Asn Leu Gln Thr Arg Val Thr Ala Ile Glu Lys Tyr Leu Lys
65 70 75 80

Asp Gln Ala Gln Leu Asn Ala Trp Gly Cys Ala Phe Arg Gln Val Cys
85 90 95

His Thr Thr Val Pro Trp Pro Asn Ala Ser Leu Thr Pro Asp Trp Asn
100 105 110

Asn Asp Thr Trp Gln Glu Trp Glu Arg Lys Val Asp Phe Leu Glu Glu
115 120 125

Asn Ile Thr Ala Leu Leu Glu Glu Ala Gln Ile Gln Gln Glu Lys Asn
130 135 140

Met Tyr Glu Leu Gln Lys Leu Asn Ser Trp Asp Val Phe Gly Asn Xaa
145 150 155 160

Xaa
165 170 175

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ile Tyr Ile Val Met Leu
180 185 190

Ala Lys Leu Arg Gln Gly Tyr Arg Pro Val Phe Ser Ser Pro Pro Ser
195 200 205

Tyr Phe Gln Xaa Thr His Thr Gln Gln Asp Pro Ala Leu Pro Thr Arg
210 215 220

Glu Gly Lys Glu Gly Asp Gly Gly Glu Gly Gly Gly Asn Ser Ser Trp
225 230 235 240

Pro Trp Gln Ile Glu Tyr Ile His Phe
245

(2) INFORMATION FOR SEQ ID NO:103:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 856 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:103:

Met Thr Arg Arg Arg Val Leu Ser Val Val Val Leu Leu Ala Ala Leu
1 5 10 15

Ala Cys Arg Leu Gly Ala Gln Thr Pro Glu Gln Pro Ala Pro Pro Ala
20 25 30

Thr Thr Val Gln Pro Thr Ala Thr Arg Gln Gln Thr Ser Phe Pro Phe
35 40 45

Arg Val Cys Glu Leu Ser Ser His Gly Asp Leu Phe Arg Phe Ser Ser
50 55 60

Asp Ile Gln Cys Pro Ser Phe Gly Thr Arg Glu Asn His Thr Glu Gly
65 70 75 80

Leu Leu Met Val Phe Lys Asp Asn Ile Ile Pro Tyr Ser Phe Lys Val
85 90 95

Arg Ser Tyr Thr Lys Ile Val Thr Asn Ile Leu Ile Tyr Asn Gly Trp
100 105 110

Tyr Ala Asp Ser Val Thr Asn Arg His Glu Glu Lys Phe Ser Val Asp
115 120 125

Ser Tyr Glu Thr Asp Gln Met Asp Thr Ile Tyr Gln Cys Tyr Asn Ala
130 135 140

Val Lys Met Thr Lys Asp Gly Leu Thr Arg Val Tyr Val Asp Arg Asp
145 150 155 160

Gly Val Asn Ile Thr Val Asn Leu Lys Pro Thr Gly Gly Leu Ala Asn
165 170 175

Gly Val Arg Arg Tyr Ala Ser Gln Thr Glu Leu Tyr Asp Ala Pro Gly
180 185 190

Trp Leu Ile Trp Thr Tyr Arg Thr Arg Thr Val Asn Cys Leu Ile
195 200 205

Thr Asp Met Met Ala Lys Ser Asn Ser Pro Phe Asp Phe Val Thr
210 215 220

Thr Thr Gly Gln Thr Val Glu Met Ser Pro Phe Tyr Asp Gly Lys Asn
225 230 235 240

Lys Glu Thr Phe His Glu Arg Ala Asp Ser Phe His Val Arg Thr Asn
245 250 255

Tyr Lys Ile Val Asp Tyr Asp Asn Arg Gly Thr Asn Pro Gln Gly Glu
260 265 270

Arg Arg Ala Phe Leu Asp Lys Gly Thr Tyr Thr Leu Ser Trp Lys Leu
275 280 285

Glu Asn Arg Thr Ala Tyr Cys Pro Leu Gln His Trp Gln Thr Phe Asp
290 295 300

Ser Thr Ile Ala Thr Glu Thr Gly Lys Ser Ile His Phe Val Thr Asp

305	310	315	320
Glu	Gly	Thr	Ser
325	330	335	
Ser	Phe	Val	Thr
325	330	335	
Asn	Thr	Thr	Val
	330	335	
Gly	Ile	Glu	Leu
	335	335	
Pro	Asp	Ala	Phe
340	345	350	
Lys	Cys	Ile	Glu
	345	350	
Gln	Val	Asn	Lys
	350	350	
Tyr		Thr	His
		350	Glu
Lys	Tyr	Glu	Ala
355	360	365	Ile
Ala	Val	Gln	
	360	365	
Asp	Arg	Tyr	Thr
	365	370	
Tyr	Phe	Ile	Thr
	370	375	
Ser	Thr	Gly	Gly
	375	380	
Leu	Leu	Leu	Leu
	380	385	
Ala	Trp	Leu	Pro
	385	390	
Leu	Leu	Pro	Leu
	390	395	Thr
Thr	Val	Lys	Glu
	395	400	Leu
Asn	Leu	Asn	Thr
	400	405	
Ser	Pro	Pro	Pro
	405	410	
Ser	Pro	Pro	Ala
	410	415	Pro
Ser	Ala		
	415		
Ala	Arg	Gly	Ser
420	425	430	Thr
Thr	Pro	Ala	Ala
	425	430	Val
Ala	Val	Leu	Arg
	430	435	Arg
Arg	Arg	Arg	Arg
	435	440	Asp
Ala	Gly	Asn	Ala
440	445	450	Thr
Thr	Pro	Val	Pro
	445	450	Pro
Pro	Pro	Thr	Ala
	450	455	Gly
Gly	Lys	Ile	Leu
	455	460	Phe
Ile	Gln	Gln	Ala
	460		Tyr
Asp	Ser	Leu	Arg
465	470	475	Arg
Arg	Gln	Ile	Asn
	470	475	Arg
Gln	Ile	Asn	Met
	475	480	Leu
Asn	Arg	Arg	Gly
	480	485	Asp
Ala	Trp	Cys	Leu
485	490	495	Glu
Leu	Glu	Gln	Lys
	490	495	Arg
Lys	Arg	Gln	Arg
	495		Glu
Gln	Arg	Arg	Arg
		495	
Thr	Lys	Ile	Asn
500	505	510	Pro
Asn	Pro	Thr	Thr
	500	505	Val
Thr	Val	Met	Val
	505	510	Asn
Ser	Ser	Ser	Ile
	510	515	Tyr
Ile	Tyr	Gly	Gly
	515	520	Lys
Gly	Asp	Val	Ala
	520	525	Arg
Val	Ile	Ser	Val
	525		Gly
Pro	Val	Asn	Gln
530	535	540	Ala
Ala	Thr	Val	Thr
	535	540	Leu
Thr	Leu	Arg	Arg
	540	545	Lys
Arg	Gly	Asn	Ser
	545	550	Asn
Gly	Ser	Glu	Thr
	550	555	Met
Thr	Tyr	Ser	Cys
	555	560	Asp
Ser	Arg	Pro	Leu
	560	565	Val
Pro	Leu	Ser	Leu
	565	570	Asp
Leu	Val	Asn	Phe
	570	575	Ser
Asn	Asp	Gly	Ser
	575		Asn
Gly	Gly	Gln	Gly
	575		Asn
Gln	Leu	Gly	Asn
		575	Glu
Leu	Gly	Thr	Asp
		575	Asn
Asp	Tyr	Asp	Asn
		575	Glu
Asn	Asp	Tyr	Asn
		575	
Tyr	Tyr	Phe	Asp
		575	
Phe	Gln	Ser	Tyr
		575	
Ser	Gly	Asn	Asn
		575	
Asn	Glu	Ile	Ile
		575	
Ile	His	Val	Tyr
		575	
Val	Tyr	Asn	Asn
		575	
Asn	Asp	Tyr	Tyr
		575	
Tyr	Tyr	Phe	Asp
		575	
Phe	Gln	Ser	Tyr
		575	
Ser	Gly	Asn	Asn
		575	
Asn	Glu	Ile	Ile
		575	
Ile	His	Val	Tyr
		575	
Val	Tyr	Asn	Asn
		575	
Asn	Asp	Tyr	Tyr
		575	
Tyr	Tyr	Phe	Asp
		575	
Phe	Gln	Ser	Tyr
		575	
Ser	Gly	Asn	Asn
		575	
Asn	Glu	Ile	Ile
		575	
Ile	His	Val	Tyr
		575	
Val	Tyr	Asn	Asn
		575	
Asn	Asp	Tyr	Tyr
		575	
Tyr	Tyr	Phe	Asp
		575	
Phe	Gln	Ser	Tyr
		575	
Ser	Gly	Asn	Asn
		575	
Asn	Glu	Ile	Ile
		575	
Ile	His	Val	Tyr
		575	
Val	Tyr	Asn	Asn
		575	
Asn	Asp	Tyr	Tyr
		575	
Tyr	Tyr	Phe	Asp
		575	
Phe	Gln	Ser	Tyr
		575	
Ser	Gly	Asn	Asn
		575	
Asn	Glu	Ile	Ile
		575	
Ile	His	Val	Tyr
		575	
Val	Tyr	Asn	Asn
		575	
Asn	Asp	Tyr	Tyr
		575	
Tyr	Tyr	Phe	Asp
		575	
Phe	Gln	Ser	Tyr
		575	
Ser	Gly	Asn	Asn
		575	
Asn	Glu	Ile	Ile
		575	
Ile	His	Val	Tyr
		575	
Val	Tyr	Asn	Asn
		575	
Asn	Asp	Tyr	Tyr
		575	
Tyr	Tyr	Phe	Asp
		575	
Phe	Gln	Ser	Tyr
		575	
Ser	Gly	Asn	Asn
		575	
Asn	Glu	Ile	Ile
		575	
Ile	His	Val	Tyr
		575	
Val	Tyr	Asn	Asn
		575	
Asn	Asp	Tyr	Tyr
		575	
Tyr	Tyr	Phe	Asp
		575	
Phe	Gln	Ser	Tyr
		575	
Ser	Gly	Asn	Asn
		575	
Asn	Glu	Ile	Ile
		575	
Ile	His	Val	Tyr
		575	
Val	Tyr	Asn	Asn
		575	
Asn	Asp	Tyr	Tyr
		575	
Tyr	Tyr	Phe	Asp
		575	
Phe	Gln	Ser	Tyr
		575	
Ser	Gly	Asn	Asn
		575	
Asn	Glu	Ile	Ile
		575	
Ile	His	Val	Tyr
		575	
Val	Tyr	Asn	Asn
		575	
Asn	Asp	Tyr	Tyr
		575	
Tyr	Tyr	Phe	Asp
		575	
Phe	Gln	Ser	Tyr
		575	
Ser	Gly	Asn	Asn
		575	
Asn	Glu	Ile	Ile
		575	
Ile	His	Val	Tyr
		575	
Val	Tyr	Asn	Asn
		575	
Asn	Asp	Tyr	Tyr
		575	
Tyr	Tyr	Phe	Asp
		575	
Phe	Gln	Ser	Tyr
		575	
Ser	Gly	Asn	Asn
		575	
Asn	Glu	Ile	Ile
		575	
Ile	His	Val	Tyr
		575	
Val	Tyr	Asn	Asn
		575	
Asn	Asp	Tyr	Tyr
		575	
Tyr	Tyr	Phe	Asp
		575	
Phe	Gln	Ser	Tyr
		575	
Ser	Gly	Asn	Asn
		575	
Asn	Glu	Ile	Ile
		575	
Ile	His	Val	Tyr
		575	
Val	Tyr	Asn	Asn
		575	
Asn	Asp	Tyr	Tyr
		575	
Tyr	Tyr	Phe	Asp
		575	
Phe	Gln	Ser	Tyr
		575	
Ser	Gly	Asn	Asn
		575	
Asn	Glu	Ile	Ile
		575	
Ile	His	Val	Tyr
		575	
Val	Tyr	Asn	Asn
		575	
Asn	Asp	Tyr	Tyr
		575	
Tyr	Tyr	Phe	Asp
		575	
Phe	Gln	Ser	Tyr
		575	
Ser	Gly	Asn	Asn
		575	
Asn	Glu	Ile	Ile
		575	
Ile	His	Val	Tyr
		575	
Val	Tyr	Asn	Asn
		575	
Asn	Asp	Tyr	Tyr
		575	
Tyr	Tyr	Phe	Asp
		575	
Phe	Gln	Ser	Tyr
		575	
Ser	Gly	Asn	Asn
		575	
Asn	Glu	Ile	Ile
		575	
Ile	His	Val	Tyr
		575	
Val	Tyr	Asn	Asn
		575	
Asn	Asp	Tyr	Tyr
		575	
Tyr	Tyr	Phe	Asp
		575	
Phe	Gln	Ser	Tyr
		575	
Ser	Gly	Asn	Asn
		575	
Asn	Glu	Ile	Ile
		575	
Ile	His	Val	Tyr
		575	
Val	Tyr	Asn	Asn
		575	
Asn	Asp	Tyr	Tyr
		575	
Tyr	Tyr	Phe	Asp
		575	
Phe	Gln	Ser	Tyr
		575	
Ser	Gly	Asn	Asn
		575	
Asn	Glu	Ile	Ile
		575	
Ile	His	Val	Tyr
		575	
Val	Tyr	Asn	Asn
		575	
Asn	Asp	Tyr	Tyr
		575	
Tyr	Tyr	Phe	Asp
		575	
Phe	Gln	Ser	Tyr
		575	
Ser	Gly	Asn	Asn
		575	
Asn	Glu	Ile	Ile
		575	
Ile	His	Val	Tyr
		575	
Val	Tyr	Asn	Asn
		575	
Asn	Asp	Tyr	Tyr
		575	
Tyr	Tyr	Phe	Asp
		575	
Phe	Gln	Ser	Tyr
		575	
Ser	Gly	Asn	Asn
		575	
Asn	Glu	Ile	Ile
		575	
Ile	His	Val	Tyr
		575	
Val	Tyr	Asn	Asn
		575	
Asn	Asp	Tyr	Tyr
		575	
Tyr	Tyr	Phe	Asp
		575	
Phe	Gln	Ser	Tyr
		575	
Ser	Gly	Asn	Asn
		575	
Asn	Glu	Ile	Ile
		575	
Ile	His	Val	Tyr
		575	
Val	Tyr		

Leu Arg Lys Asp Leu Asp Asn Ala Val Ser Asn Gly Arg Asn Gln Phe
 675 680 685
 Val Asp Gly Leu Gly Glu Leu Met Asp Ser Leu Gly Ser Val Gly Gln
 690 695 700
 Ser Ile Thr Asn Leu Val Ser Thr Val Gly Gly Leu Phe Ser Ser Leu
 705 710 715 720
 Val Ser Gly Phe Ile Ser Phe Phe Lys Asn Pro Phe Gly Gly Met Leu
 725 730 735
 Ile Leu Val Leu Val Ala Gly Val Val Ile Leu Val Ile Ser Leu Thr
 740 745 750
 Arg Arg Thr Arg Gln Met Ser Gln Gln Pro Val Gln Met Leu Tyr Pro
 755 760 765
 Gly Ile Asp Glu Leu Ala Gln Gln His Ala Ser Gly Glu Gly Pro Gly
 770 775 780
 Ile Asn Pro Ile Ser Lys Thr Glu Leu Gln Ala Ile Met Leu Ala Leu
 785 790 795 800
 His Glu Gln Asn Gln Glu Gln Lys Arg Ala Ala Gln Arg Ala Ala Gly
 805 810 815
 Pro Ser Val Ala Ser Arg Ala Leu Gln Ala Ala Arg Asp Arg Phe Pro
 820 825 830
 Gly Leu Arg Arg Arg Tyr His Asp Pro Glu Thr Ala Ala Ala Leu
 835 840 845
 Leu Gly Glu Ala Glu Thr Glu Phe
 850 855

(2) INFORMATION FOR SEQ ID NO:104:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 245 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:104:

Met Met Asp Pro Asn Ser Thr Ser Glu Asp Val Lys Phe Thr Pro Asp
 1 5 10 15
 Pro Tyr Gln Val Pro Phe Val Gln Ala Phe Asp Gln Ala Thr Arg Val
 20 25 30
 Tyr Gln Asp Leu Gly Gly Pro Ser Gln Ala Pro Leu Pro Cys Val Leu
 35 40 45
 Trp Pro Val Leu Pro Glu Pro Leu Pro Gln Gly Gln Leu Thr Ala Tyr
 50 55 60
 His Val Ser Thr Ala Pro Thr Gly Ser Trp Phe Ser Ala Pro Gln Pro
 65 70 75 80
 Ala Pro Glu Asn Ala Tyr Gln Ala Tyr Ala Ala Pro Gln Leu Phe Pro

85	90	95	
Val Ser Asp Ile Thr Gln Asn Gln Gln	Thr Asn Gln Ala Gly Gly Glu		
100	105	110	
Ala Pro Gln Pro Gly Asp Asn Ser Thr Val Gln Thr Ala Ala Ala Val			
115	120	125	
Val Phe Ala Cys Pro Gly Ala Asn Gln Gly Gln Gln Leu Ala Asp Ile			
130	135	140	
Gly Val Pro Gln Pro Ala Pro Val Ala Ala Pro Ala Arg Arg Thr Arg			
145	150	155	160
Lys Pro Gln Gln Pro Glu Ser Leu Glu Glu Cys Asp Ser Glu Leu Glu			
165	170	175	
Ile Lys Arg Tyr Lys Asn Arg Val Ala Ser Arg Lys Cys Arg Ala Lys			
180	185	190	
Phe Lys Gln Leu Leu Gln His Tyr Arg Glu Val Ala Ala Ala Lys Ser			
195	200	205	
Ser Glu Asn Asp Arg Leu Arg Leu Leu Leu Lys Gln Met Cys Pro Ser			
210	215	220	
Leu Asp Val Asp Ser Ile Ile Pro Arg Thr Pro Asp Val Leu His Glu			
225	230	235	240
Asp Leu Leu Asn Phe			
245			

(2) INFORMATION FOR SEQ ID NO:105:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 438 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:105:

Phe Ala Gly Val Val Leu Ala Gly Ala Ala Leu Gly Val Ala Thr Ala			
1	5	10	15
Ala Gln Ile Thr Ala Gly Ile Ala Leu His Gln Ser Met Leu Asn Ser			
20	25	30	
Gln Ala Ile Asp Asn Leu Arg Ala Ser Leu Glu Thr Thr Asn Gln Ala			
35	40	45	
Ile Glu Ala Ile Arg Gln Ala Gly Gln Glu Met Ile Leu Ala Val Gln			
50	55	60	
Gly Val Gln Asp Tyr Ile Asn Asn Glu Leu Ile Pro Ser Met Asn Gln			
65	70	75	80
Leu Ser Cys Asp Leu Ile Gly Gln Lys Leu Gly Leu Lys Leu Leu Arg			
85	90	95	
Tyr Tyr Thr Glu Ile Leu Ser Leu Phe Gly Pro Ser Leu Arg Asp Pro			
100	105	110	



Ile Ser Ala Glu Ile Ser Ile Gln Ala Leu Ser Tyr Ala Leu Gly Gly
 115 120 125
 Asp Ile Asn Lys Val Leu Glu Lys Leu Gly Tyr Ser Gly Gly Asp Leu
 130 135 140
 Leu Gly Ile Leu Glu Ser Arg Gly Ile Lys Ala Arg Ile Thr His Val
 145 150 155 160
 Asp Thr Glu Ser Tyr Phe Ile Val Leu Ser Ile Ala Tyr Pro Thr Leu
 165 170 175
 Ser Glu Ile Lys Gly Val Ile Val His Arg Leu Glu Gly Val Ser Tyr
 180 185 190
 Asn Ile Gly Ser Gln Glu Trp Tyr Thr Thr Val Pro Lys Tyr Val Ala
 195 200 205
 Thr Gln Gly Tyr Leu Ile Ser Asn Phe Asp Glu Ser Ser Cys Thr Phe
 210 215 220
 Met Pro Glu Gly Thr Val Cys Ser Gln Asn Ala Leu Tyr Pro Met Ser
 225 230 235 240
 Pro Leu Leu Gln Glu Cys Leu Arg Gly Ser Thr Lys Ser Cys Ala Arg
 245 250 255
 Thr Leu Val Ser Gly Ser Phe Gly Asn Arg Phe Ile Leu Ser Gln Gly
 260 265 270
 Asn Leu Ile Ala Asn Cys Ala Ser Ile Leu Cys Lys Cys Tyr Thr Thr
 275 280 285
 Gly Thr Ile Ile Asn Gln Asp Pro Asp Lys Ile Leu Thr Tyr Ile Ala
 290 295 300
 Ala Asp His Cys Pro Val Val Glu Val Asn Gly Val Thr Ile Gln Val
 305 310 315 320
 Gly Ser Arg Arg Tyr Pro Asp Ala Val Tyr Leu His Arg Ile Asp Leu
 325 330 335
 Gly Pro Pro Ile Ser Leu Glu Arg Leu Asp Val Gly Thr Asn Leu Gly
 340 345 350
 Asn Ala Ile Ala Lys Leu Glu Asp Ala Lys Glu Leu Leu Glu Ser Ser
 355 360 365
 Asp Gln Ile Leu Arg Ser Met Lys Gly Leu Ser Ser Thr Ser Ile Val
 370 375 380
 Tyr Ile Leu Ile Ala Val Cys Leu Gly Gly Leu Ile Gly Ile Pro Ala
 385 390 395 400
 Leu Ile Cys Cys Cys Arg Gly Arg Cys Asn Lys Lys Gly Glu Gln Val
 405 410 415
 Gly Met Ser Arg Pro Gly Leu Lys Pro Asp Leu Thr Gly Thr Ser Lys
 420 425 430
 Ser Tyr Val Arg Ser Leu
 435

(2) INFORMATION FOR SEQ ID NO:106:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 389 amino acids

(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:106:

Met Gly Gln Asn Leu Ser Thr Ser Asn Pro Leu Gly Phe Phe Pro Asp
1 5 10 15

His Gln Leu Asp Pro Ala Phe Arg Ala Asn Thr Ala Asn Pro Asp Trp
20 25 30

Asp Phe Asn Pro Asn Lys Asp Thr Trp Pro Asp Ala Asn Lys Val Gly
35 40 45

Ala Gly Ala Phe Gly Leu Gly Phe Thr Pro Pro His Gly Gly Leu Leu
50 55 60

Gly Trp Ser Pro Gln Ala Gln Gly Ile Leu Gln Thr Leu Pro Ala Asn
65 70 75 80

Pro Pro Pro Ala Ser Thr Asn Arg Gln Ser Gly Arg Gln Pro Thr Pro
85 90 95

Leu Ser Pro Pro Leu Arg Asn Thr His Pro Gln Ala Met Gln Trp Asn
100 105 110

Ser Thr Thr Phe His Gln Thr Leu Gln Asp Pro Arg Val Arg Gly Leu
115 120 125

Tyr Phe Pro Ala Gly Gly Ser Ser Ser Gly Thr Val Asn Pro Val Leu
130 135 140

Thr Thr Ala Ser Pro Leu Ser Ser Ile Phe Ser Arg Ile Gly Asp Pro
145 150 155 160

Ala Leu Asn Met Glu Asn Ile Thr Ser Gly Phe Leu Gly Pro Leu Leu
165 170 175

Val Leu Gln Ala Gly Phe Phe Leu Leu Thr Arg Ile Leu Thr Ile Pro
180 185 190

Gln Ser Leu Asp Ser Trp Trp Thr Ser Leu Asn Phe Leu Gly Gly Thr
195 200 205

Thr Val Cys Leu Gly Gln Asn Ser Gln Ser Pro Thr Ser Asn His Ser
210 215 220

Pro Thr Ser Cys Pro Pro Thr Cys Pro Gly Tyr Arg Trp Met Cys Leu
225 230 235 240

Arg Arg Phe Ile Ile Phe Leu Phe Ile Leu Leu Cys Leu Ile Phe
245 250 255

Leu Leu Val Leu Leu Asp Tyr Gln Gly Met Leu Pro Val Cys Pro Leu
260 265 270

Ile Pro Gly Ser Ser Thr Thr Ser Thr Gly Pro Cys Arg Thr Cys Met
275 280 285

Thr Thr Ala Gln Gly Thr Ser Met Tyr Pro Ser Cys Cys Cys Thr Lys
290 295 300

Pro Ser Asp Gly Asn Cys Thr Cys Ile Pro Ile Pro Ser Ser Trp Ala
 305 310 315 320
 Phe Gly Lys Phe Leu Trp Glu Trp Ala Ser Ala Arg Phe Ser Trp Leu
 325 330 335
 Ser Leu Leu Val Pro Phe Val Gln Trp Phe Val Gly Leu Ser Pro Thr
 340 345 350
 Val Trp Leu Ser Val Ile Trp Met Met Trp Tyr Trp Gly Pro Ser Leu
 355 360 365
 Tyr Ser Ile Leu Ser Pro Phe Leu Pro Leu Leu Pro Ile Phe Phe Cys
 370 375 380
 Leu Trp Val Tyr Ile
 385

(2) INFORMATION FOR SEQ ID NO:107:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 192 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:107:

Ala Ile Gln Leu Ile Pro Leu Phe Val Gly Leu Gly Ile Thr Thr Ala
 1 5 10 15
 Val Ser Thr Gly Ala Ala Gly Leu Gly Val Ser Ile Thr Gln Tyr Thr
 20 25 30
 Lys Leu Ser His Gln Leu Ile Ser Asp Val Gln Ala Ile Ser Ser Thr
 35 40 45
 Ile Gln Asp Leu Gln Asp Gln Val Asp Ser Leu Ala Glu Val Val Leu
 50 55 60
 Gln Asn Arg Arg Gly Leu Asp Leu Leu Thr Ala Glu Gln Gly Gly Ile
 65 70 75 80
 Cys Leu Ala Leu Gln Glu Lys Cys Cys Phe Tyr Ala Asn Lys Ser Gly
 85 90 95
 Ile Val Arg Asp Lys Ile Lys Asn Leu Gln Asp Asp Leu Glu Arg Arg
 100 105 110
 Arg Arg Gln Leu Ile Asp Asn Pro Phe Trp Thr Ser Phe His Gly Phe
 115 120 125
 Leu Pro Tyr Val Met Pro Leu Leu Gly Pro Leu Leu Cys Leu Leu Leu
 130 135 140
 Val Leu Ser Phe Gly Pro Ile Ile Phe Asn Lys Leu Met Thr Phe Ile
 145 150 155 160
 Lys His Gln Ile Glu Ser Ile Gln Ala Lys Pro Ile Gln Val His Tyr
 165 170 175
 His Arg Leu Glu Gln Glu Asp Ser Gly Gly Ser Tyr Leu Thr Leu Thr

180

185

190

(2) INFORMATION FOR SEQ ID NO:108:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 154 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

- (ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:108:

Met Lys Ala Gln Lys Gly Phe Thr Leu Ile Glu Leu Met Ile Val Val
1 5 10 15

Ala Ile Ile Gly Ile Leu Ala Ala Ile Ala Ile Pro Gln Tyr Gln Asp
20 25 30

Tyr Thr Ala Arg Thr Gln Val Thr Arg Ala Val Ser Glu Val Ser Ala
35 40 45

Leu Lys Thr Ala Ala Glu Ser Ala Ile Leu Glu Gly Lys Glu Ile Val
50 55 60

Ser Ser Ala Thr Pro Lys Asp Thr Gln Tyr Asp Ile Gly Phe Thr Glu
65 70 75 80

Ser Thr Leu Leu Asp Gly Ser Gly Lys Ser Gln Ile Gln Val Thr Asp
85 90 95

Asn Gln Asp Gly Thr Val Glu Leu Val Ala Thr Leu Gly Lys Ser Ser
100 105 110

Gly Ser Ala Ile Lys Gly Ala Val Ile Thr Val Ser Arg Lys Asn Asp
115 120 125

Gly Val Trp Asn Cys Lys Ile Thr Lys Thr Pro Thr Ala Trp Lys Pro
130 135 140

Asn Tyr Ala Pro Ala Asn Cys Pro Lys Ser
145 150

(2) INFORMATION FOR SEQ ID NO:109:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 167 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

- (ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:109:

Met Asn Thr Leu Gln Lys Gly Phe Thr Leu Ile Glu Leu Met Ile Val
1 5 10 15

Ile Ala Ile Val Gly Ile Leu Ala Ala Val Ala Leu Pro Ala Tyr Gln

20

25

30

Asp	Tyr	Thr	Ala	Arg	Ala	Gln	Val	Ser	Glu	Ala	Ile	Leu	Leu	Ala	Glu
35							40					45			
Gly	Gln	Lys	Ser	Ala	Val	Thr	Glu	Tyr	Tyr	Leu	Asn	His	Gly	Ile	Trp
50					55					60					
Pro	Lys	Asp	Asn	Thr	Ser	Ala	Gly	Val	Ala	Ser	Ser	Ser	Ser	Ile	Lys
65					70					75					80
Gly	Lys	Tyr	Val	Lys	Glu	Val	Lys	Val	Glu	Asn	Gly	Val	Val	Thr	Ala
			85				90					95			
Thr	Met	Asn	Ser	Ser	Asn	Val	Asn	Lys	Glu	Ile	Gln	Gly	Lys	Lys	Leu
	100					105						110			
Ser	Leu	Trp	Ala	Lys	Arg	Gln	Asp	Gly	Ser	Val	Lys	Trp	Phe	Cys	Gly
		115					120					125			
Gln	Pro	Val	Thr	Arg	Asn	Ala	Lys	Asp	Asp	Thr	Val	Thr	Ala	Asp	Ala
	130				135						140				
Thr	Gly	Asn	Asp	Gly	Lys	Ile	Asp	Thr	Lys	His	Leu	Pro	Ser	Thr	Cys
	145				150					155					160
Arg	Asp	Asn	Phe	Asp	Ala	Ser									
			165												

(2) INFORMATION FOR SEQ ID NO:110:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 213 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:110:

Met	Lys	Lys	Thr	Leu	Leu	Gly	Ser	Leu	Ile	Leu	Leu	Ala	Phe	Ala	Gly
1				5					10				15		
Asn	Val	Gln	Ala	Asp	Ile	Asn	Thr	Glu	Thr	Ser	Gly	Lys	Val	Thr	Phe
	20				25						30				
Phe	Gly	Lys	Val	Val	Glu	Asn	Thr	Cys	Lys	Val	Lys	Thr	Glu	His	Lys
	35				40						45				
Asn	Leu	Ser	Val	Val	Leu	Asn	Asp	Val	Gly	Lys	Asn	Ser	Leu	Ser	Thr
	50				55						60				
Lys	Val	Asn	Thr	Ala	Met	Pro	Thr	Pro	Phe	Thr	Ile	Thr	Leu	Gln	Asn
	65				70					75			80		
Cys	Asp	Pro	Thr	Thr	Ala	Asn	Gly	Thr	Ala	Asn	Lys	Ala	Asn	Lys	Val
		85						90					95		
Gly	Leu	Tyr	Phe	Tyr	Ser	Trp	Lys	Asn	Val	Asp	Lys	Glu	Asn	Asn	Phe
		100						105					110		
Thr	Leu	Lys	Asn	Glu	Gln	Thr	Thr	Ala	Asp	Tyr	Ala	Thr	Asn	Val	Asn
	115					120						125			

Ile Gln Leu Met Glu Ser Asn Gly Thr Lys Ala Ile Ser Val Val Gly
 130 135 140
 Lys Glu Thr Glu Asp Phe Met His Thr Asn Asn Asn Gly Val Ala Leu
 145 150 155 160
 Asn Gln Thr His Pro Asn Asn Ala His Ile Ser Gly Ser Thr Gln Leu
 165 170 175
 Thr Thr Gly Thr Asn Glu Leu Pro Leu His Phe Ile Ala Gln Tyr Tyr
 180 185 190
 Ala Thr Asn Lys Ala Thr Ala Gly Lys Val Gln Ser Ser Val Asp Phe
 195 200 205
 Gln Ile Ala Tyr Glu
 210

(2) INFORMATION FOR SEQ ID NO:111:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 234 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:111:

Met Asn Lys Lys Leu Leu Met Asn Phe Phe Ile Val Ser Pro Leu Leu
 1 5 10 15
 Leu Ala Thr Thr Ala Thr Asp Phe Thr Pro Val Pro Leu Ser Ser Asn
 20 25 30
 Gln Ile Ile Lys Thr Ala Lys Ala Ser Thr Asn Asp Asn Ile Lys Asp
 35 40 45
 Leu Leu Asp Trp Tyr Ser Ser Gly Ser Asp Thr Phe Thr Asn Ser Glu
 50 55 60
 Val Leu Asp Asn Ser Leu Gly Ser Met Arg Ile Lys Asn Thr Asp Gly
 65 70 75 80
 Ser Ile Ser Leu Ile Ile Phe Pro Ser Pro Tyr Tyr Ser Pro Ala Phe
 85 90 95
 Thr Lys Gly Glu Lys Val Asp Leu Asn Thr Lys Arg Thr Lys Lys Ser
 100 105 110
 Gln His Thr Ser Glu Gly Thr Tyr Ile His Phe Gln Ile Ser Gly Val
 115 120 125
 Thr Asn Thr Glu Lys Leu Pro Thr Pro Ile Glu Leu Pro Leu Lys Val
 130 135 140
 Lys Val His Gly Lys Asp Ser Pro Leu Lys Tyr Gly Pro Lys Phe Asp
 145 150 155 160
 Lys Lys Gln Leu Ala Ile Ser Thr Leu Asp Phe Glu Ile Arg His Gln
 165 170 175
 Leu Thr Gln Ile His Gly Leu Tyr Arg Ser Ser Asp Lys Thr Gly Gly

180	185	190
Tyr Trp Lys Ile Thr Met Asn Asp Gly Ser Thr Tyr Gln Ser Asp Leu		
195	200	205
Ser Lys Lys Phe Glu Tyr Asn Thr Glu Lys Pro Pro Ile Asn Ile Asp		
210	215	220
Glu Ile Lys Thr Ile Glu Ala Glu Ile Asn		
225	230	

(2) INFORMATION FOR SEQ ID NO:112:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 257 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

- (ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:112:

Met Lys Lys Thr Ala Phe Ile Leu Leu Leu Phe Ile Ala Leu Thr Leu			
1	5	10	15
Thr Thr Ser Pro Leu Val Asn Gly Ser Glu Lys Ser Glu Glu Ile Asn			
20	25	30	
Glu Lys Asp Leu Arg Lys Lys Ser Glu Leu Gln Arg Asn Ala Leu Ser			
35	40	45	
Asn Leu Arg Gln Ile Tyr Tyr Asn Glu Lys Ala Ile Thr Glu Asn			
50	55	60	
Lys Glu Ser Asp Asp Gln Phe Leu Glu Asn Thr Leu Leu Phe Lys Gly			
65	70	75	80
Phe Phe Thr Gly His Pro Trp Tyr Asn Asp Leu Leu Val Asp Leu Gly			
85	90	95	
Ser Lys Asp Ala Thr Asn Lys Tyr Lys Gly Lys Val Asp Leu Tyr			
100	105	110	
Gly Ala Tyr Tyr Gly Tyr Gln Cys Ala Gly Gly Thr Pro Asn Lys Thr			
115	120	125	
Ala Cys Met Tyr Gly Gly Val Thr Leu His Asp Asn Asn Arg Leu Thr			
130	135	140	
Glu Glu Lys Lys Val Pro Ile Asn Leu Trp Ile Asp Gly Lys Gln Thr			
145	150	155	160
Thr Val Pro Ile Asp Lys Val Lys Thr Ser Lys Lys Glu Val Thr Val			
165	170	175	
Gln Glu Leu Asp Leu Gln Ala Arg His Tyr Leu His Gly Lys Phe Gly			
180	185	190	
Leu Tyr Asn Ser Asp Ser Phe Gly Gly Lys Val Gln Arg Gly Leu Ile			
195	200	205	
Val Phe His Ser Ser Glu Gly Ser Thr Val Ser Tyr Asp Leu Phe Asp			
210	215	220	



Ala Gln Gly Gln Tyr Pro Asp Thr Leu Leu Arg Ile Tyr Arg Asp Asn
225 230 235 240

Lys Thr Ile Asn Ser Glu Asn Leu His Ile Asp Leu Tyr Leu Tyr Thr
245 250 255

Thr

(2) INFORMATION FOR SEQ ID NO:113:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 257 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:113:

Met Lys Lys Thr Ala Phe Thr Leu Leu Leu Phe Ile Ala Leu Thr Leu
1 5 10 15

Thr Thr Ser Pro Leu Val Asn Gly Ser Glu Lys Ser Glu Glu Ile Asn
20 25 30

Glu Lys Asp Leu Arg Lys Lys Ser Glu Leu Gln Gly Thr Ala Leu Gly
35 40 45

Asn Leu Lys Gln Ile Tyr Tyr Asn Glu Lys Ala Lys Thr Glu Asn
50 55 60

Lys Glu Ser His Asp Gln Phe Leu Gln His Thr Ile Leu Phe Lys Gly
65 70 75 80

Phe Phe Thr Asp His Ser Trp Tyr Asn Asp Leu Leu Val Asp Phe Asp
85 90 95

Ser Lys Asp Ile Val Asp Lys Tyr Lys Gly Lys Lys Val Asp Leu Tyr
100 105 110

Gly Ala Tyr Tyr Gly Tyr Gln Cys Ala Gly Gly Thr Pro Asn Lys Thr
115 120 125

Ala Cys Met Tyr Gly Val Thr Leu His Asp Asn Asn Arg Leu Thr
130 135 140

Glu Glu Lys Lys Val Pro Ile Asn Leu Trp Leu Asp Gly Lys Gln Asn
145 150 155 160

Thr Val Pro Leu Glu Thr Val Lys Thr Asn Lys Lys Asn Val Thr Val
165 170 175

Gln Glu Leu Asp Leu Gln Ala Arg Arg Tyr Leu Gln Glu Lys Tyr Asn
180 185 190

Leu Tyr Asn Ser Asp Val Phe Asp Gly Lys Val Gln Arg Gly Leu Ile
195 200 205

Val Phe His Thr Ser Thr Glu Pro Ser Val Asn Tyr Asp Leu Phe Gly
210 215 220

Ala Gln Gly Gln Tyr Ser Asn Thr Leu Leu Arg Ile Tyr Arg Asp Asn

225

230

235

240

Lys Thr Ile Asn Ser Glu Asn Met His Ile Asp Ile Tyr Leu Tyr Thr
245 250 255

Ser

(2) INFORMATION FOR SEQ ID NO:114:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 254 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:114:

Met Lys Asn Ile Thr Phe Ile Phe Phe Ile Leu Leu Ala Ser Pro Leu
1 5 10 15

Tyr Ala Asn Gly Asp Arg Leu Tyr Arg Ala Asp Ser Arg Pro Pro Asp
20 25 30

Glu Ile Lys Arg Phe Arg Ser Leu Met Pro Arg Gly Asn Glu Tyr Phe
35 40 45

Asp Arg Gly Thr Gln Met Asn Ile Asn Leu Tyr Asp His Ala Arg Gly
50 55 60

Thr Gln Thr Gly Phe Val Arg Tyr Asp Asp Gly Tyr Val Ser Thr Ser
65 70 75 80

Leu Ser Leu Arg Ser Ala His Leu Ala Gly Gln Tyr Ile Leu Ser Gly
85 90 95

Tyr Ser Leu Thr Ile Tyr Ile Val Ile Ala Asn Met Phe Asn Val Asn
 100 105 110

Asp Val Ile Ser Val Tyr Ser Pro His Pro Tyr Glu Gln Glu Val Ser
115 120 125

Ala Leu Gly Gly Ile Pro Tyr Ser Gln Ile Tyr Gly Trp Tyr Arg Val
130 135 140

Asn Phe Gly Val Ile Asp Glu Arg Leu His Arg Asn Arg Glu Tyr Arg
145 150 155 160

Asp Arg Tyr Tyr Arg Asn Leu Asn Ile Ala Pro Ala Glu Asp Gly Tyr
165 170 175

Arg Leu Ala Gly Phe Pro Pro Asp His Gln Ala Trp Arg Glu Glu Pro
180 185 190

Trp Ile His His Ala Pro Gln Gly Cys Gly Asp Ser Ser Arg Thr Ile
195 200 205

Thr Gly Asp Thr Cys Asn Glu Glu Thr Gln Asn Leu Ser Thr Ile Tyr
210 215 220

Leu Arg Glu Tyr Gln Ser Lys Val Lys Arg Gln Ile Phe Ser Asp Tyr
225 230 235 240

-477-

487

Gln Ser Glu Val Asp Ile Tyr Asn Arg Ile Arg Asp Glu Leu
245 250

(2) INFORMATION FOR SEQ ID NO:115:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 380 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:115:

Met Met Phe Ser Gly Phe Asn Ala Asp Tyr Glu Ala Ser Ser Ser Arg
1 5 10 15

Cys Ser Ser Ala Ser Pro Ala Gly Asp Ser Leu Ser Tyr Tyr His Ser
20 25 30

Pro Ala Asp Ser Phe Ser Ser Met Gly Ser Pro Val Asn Ala Gln Asp
35 40 45

Phe Cys Thr Asp Leu Ala Val Ser Ser Ala Asn Phe Ile Pro Thr Val
50 55 60

Thr Ala Ile Ser Thr Ser Pro Asp Leu Gln Trp Leu Val Gln Pro Ala
65 70 75 80

Leu Val Ser Ser Val Ala Pro Ser Gln Thr Arg Ala Pro His Pro Phe
85 90 95

Gly Val Pro Ala Pro Ser Ala Gly Ala Tyr Ser Arg Ala Gly Val Val
100 105 110

Lys Thr Met Thr Gly Gly Arg Ala Gln Ser Ile Gly Arg Arg Gly Lys
115 120 125

Val Glu Gln Leu Ser Pro Glu Glu Glu Lys Arg Arg Ile Arg Arg
130 135 140

Glu Arg Asn Lys Met Ala Ala Ala Lys Cys Arg Asn Arg Arg Arg Glu
145 150 155 160

Leu Thr Asp Thr Leu Gln Ala Glu Thr Asp Gln Leu Glu Asp Glu Lys
165 170 175

Ser Ala Leu Gln Thr Glu Ile Ala Asn Leu Leu Lys Glu Lys Glu Lys
180 185 190

Leu Glu Phe Ile Leu Ala Ala His Arg Pro Ala Cys Lys Ile Pro Asp
195 200 205

Asp Leu Gly Phe Pro Glu Glu Met Ser Val Ala Ser Leu Asp Leu Thr
210 215 220

Gly Gly Leu Pro Glu Val Ala Thr Pro Glu Ser Glu Glu Ala Phe Thr
225 230 235 240

Leu Pro Leu Leu Asn Asp Pro Glu Pro Lys Pro Ser Val Glu Pro Val
245 250 255

Lys Ser Ile Ser Ser Met Glu Leu Lys Thr Glu Pro Phe Asp Asp Phe

260	265	270
Leu Phe Pro Ala Ser Ser Arg Pro Ser Gly Ser Glu Thr Ala Arg Ser		
275	280	285
Val Pro Asp Met Asp Leu Ser Gly Ser Phe Tyr Ala Leu Pro Leu Leu		
290	295	300
Asn Asp Pro Glu Pro Lys Pro Ser Val Glu Pro Val Lys Ser Ile Ser		
305	310	315
Ser Met Glu Leu Lys Thr Glu Pro Phe Asp Asp Phe Leu Phe Pro Ala		
325	330	335
Ser Ser Arg Pro Ser Gly Ser Glu Thr Ala Arg Ser Val Pro Asp Met		
340	345	350
Asp Leu Ser Gly Ser Phe Tyr Ala Gly Ser Ser Ser Asn Glu Pro Ser		
355	360	365
Ser Asp Ser Leu Ser Ser Pro Thr Leu Leu Ala Leu		
370	375	380

(2) INFORMATION FOR SEQ ID NO:116:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 607 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:116:

Ser	Gly	Trp	Glu	Ser	Tyr	Tyr	Lys	Thr	Glu	Gly	Asp	Glu	Glu	Ala	Glu
1				5			10							15	
Glu	Glu	Gln	Glu	Glu	Asn	Leu	Glu	Ala	Ser	Gly	Asp	Tyr	Lys	Tyr	Ser
					20			25					30		
Gly	Arg	Asp	Ser	Leu	Ile	Phe	Leu	Val	Asp	Ala	Ser	Lys	Ala	Met	Phe
					35			40				45			
Glu	Ser	Gln	Ser	Glu	Asp	Glu	Leu	Thr	Pro	Phe	Asp	Met	Ser	Ile	Gln
					50			55				60			
Cys	Ile	Gln	Ser	Val	Tyr	Ile	Ser	Lys	Ile	Ile	Ser	Ser	Asp	Arg	Asp
					65			70		75			80		
Leu	Leu	Ala	Val	Val	Phe	Tyr	Gly	Thr	Glu	Lys	Asp	Lys	Asn	Ser	Val
					85			90				95			
Asn	Phe	Lys	Asn	Ile	Tyr	Val	Leu	Gln	Glu	Leu	Asp	Asn	Pro	Gly	Ala
					100			105				110			
Lys	Arg	Ile	Leu	Glu	Leu	Asp	Gln	Phe	Lys	Gly	Gln	Gln	Gly	Gln	Lys
					115			120				125			
Arg	Phe	Gln	Asp	Met	Met	Gly	His	Gly	Ser	Asp	Tyr	Ser	Leu	Ser	Glu
					130			135				140			
Val	Leu	Trp	Val	Cys	Ala	Asn	Leu	Phe	Ser	Asp	Val	Gln	Phe	Lys	Met
					145			150				155			160

Ser His Lys Arg Ile Met Leu Phe Thr Asn Glu Asp Asn Pro His Gly
165 170 175

Asn Asp Ser Ala Lys Ala Ser Arg Ala Arg Thr Lys Ala Gly Asp Leu
180 185 190

Arg Asp Thr Gly Ile Phe Leu Asp Leu Met His Leu Lys Lys Pro Gly
195 200 205

Gly Phe Asp Ile Ser Leu Phe Tyr Arg Asp Ile Ile Ser Ile Ala Glu
210 215 220

Asp Glu Asp Leu Arg Val His Phe Glu Glu Ser Ser Lys Leu Glu Asp
225 230 235 240

Leu Leu Arg Lys Val Arg Ala Lys Glu Thr Arg Lys Arg Ala Leu Ser
245 250 255

Arg Leu Lys Leu Lys Leu Asn Lys Asp Ile Val Ile Ser Val Gly Ile
260 265 270

Tyr Asn Leu Val Gln Lys Ala Leu Lys Pro Pro Pro Ile Lys Leu Tyr
275 280 285

Arg Glu Thr Asn Glu Pro Val Lys Thr Lys Thr Arg Thr Phe Asn Thr
290 295 300

Ser Thr Gly Gly Leu Leu Leu Pro Ser Asp Thr Lys Arg Ser Gln Ile
305 310 315 320

Tyr Gly Ser Arg Gln Ile Ile Leu Glu Lys Glu Glu Thr Glu Glu Leu
325 330 335

Lys Arg Phe Asp Asp Pro Gly Leu Met Leu Met Gly Phe Lys Pro Leu
340 345 350

Val Leu Leu Lys Lys His His Leu Arg Pro Ser Leu Phe Val Tyr Pro
355 360 365

Glu Glu Ser Leu Val Ile Gly Ser Ser Thr Leu Phe Ser Ala Leu Leu
370 375 380

Ile Lys Cys Leu Glu Lys Glu Val Ala Ala Leu Cys Arg Tyr Thr Pro
385 390 395 400

Arg Arg Asn Ile Pro Pro Tyr Phe Val Ala Leu Val Pro Gln Glu Glu
405 410 415

Glu Leu Asp Asp Gln Lys Ile Gln Val Thr Pro Pro Gly Phe Gln Leu
420 425 430

Val Phe Leu Pro Phe Ala Asp Asp Lys Arg Lys Met Pro Phe Thr Glu
435 440 445

Lys Ile Met Ala Thr Pro Glu Gln Val Gly Lys Met Lys Ala Ile Val
450 455 460

Glu Lys Leu Arg Phe Thr Tyr Arg Ser Asp Ser Phe Glu Asn Pro Val
465 470 475 480

Leu Gln Gln His Phe Arg Asn Leu Glu Ala Leu Ala Leu Asp Leu Met
485 490 495

Glu Pro Glu Gln Ala Val Asp Leu Thr Leu Pro Lys Val Glu Ala Met
500 505 510

Asn Lys Arg Leu Gly Ser Leu Val Asp Glu Phe Lys Glu Leu Val Tyr

515

520

525

Pro Pro Asp Tyr Asn Pro Glu Gly Lys Val Thr Lys Arg Lys His Asp			
530	535	540	
Asn Glu Gly Ser Gly Ser Lys Arg Pro Lys Val Glu Tyr Ser Glu Glu			
545	550	555	560
Glu Leu Lys Thr His Ile Ser Lys Gly Thr Leu Gly Lys Phe Thr Val			
565	570	575	
Pro Met Leu Lys Glu Ala Cys Arg Ala Tyr Gly Leu Lys Ser Gly Leu			
580	585	590	
Lys Lys Gln Glu Leu Leu Glu Ala Leu Thr Lys His Phe Gln Asp			
595	600	605	

(2) INFORMATION FOR SEQ ID NO:117:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 462 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:117:

Gly Gly Gly Ala Leu Ser Pro Gln His Ser Ala Val Thr Gln Gly Ser			
1	5	10	15
Ile Ile Lys Asn Lys Glu Gly Met Asp Ala Lys Ser Leu Thr Ala Trp			
20	25	30	
Ser Arg Thr Leu Val Thr Phe Lys Asp Val Phe Val Asp Phe Thr Arg			
35	40	45	
Glu Glu Trp Lys Leu Leu Asp Thr Ala Gln Gln Ile Val Tyr Arg Asn			
50	55	60	
Val Met Leu Glu Asn Tyr Lys Asn Leu Val Ser Leu Gly Tyr Gln Leu			
65	70	75	80
Thr Lys Pro Asp Val Ile Leu Arg Leu Glu Lys Gly Glu Glu Pro Trp			
85	90	95	
Leu Val Glu Arg Glu Ile His Gln Glu Thr His Pro Asp Ser Glu Thr			
100	105	110	
Ala Phe Glu Ile Lys Ser Ser Val Ser Ser Arg Ser Ile Phe Lys Asp			
115	120	125	
Lys Gln Ser Cys Asp Ile Lys Met Glu Gly Met Ala Arg Asn Asp Leu			
130	135	140	
Trp Tyr Leu Ser Leu Glu Val Trp Lys Cys Arg Asp Gln Leu Asp			
145	150	155	160
Lys Tyr Gln Glu Asn Pro Glu Arg His Leu Arg His Gln Leu Ile His			
165	170	175	
Thr Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Lys Ser Phe Ser			

180	185	190
Arg Ser Ser His Leu Ile Gly His Gln Lys Thr His Thr Gly Glu Glu		
195	200	205
Pro Tyr Glu Cys Lys Glu Cys Gly Lys Ser Phe Ser Trp Phe Ser His		
210	215	220
Leu Val Thr His Gln Arg Thr His Thr Gly Asp Lys Leu Tyr Thr Cys		
225	230	235
Asn Gln Cys Gly Lys Ser Phe Val His Ser Ser Arg Leu Ile Arg His		
245	250	255
Gln Arg Thr His Thr Gly His Lys Pro Tyr Glu Cys Pro Glu Cys Gly		
260	265	270
Lys Ser Phe Arg Gln Ser Thr His Leu Ile Leu His Gln Arg Thr His		
275	280	285
Val Arg Val Arg Pro Tyr Glu Cys Asn Glu Cys Gly Lys Ser Tyr Ser		
290	295	300
Gln Arg Ser His Leu Val Val His His Arg Ile His Thr Gly Leu Lys		
305	310	315
Pro Phe Glu Cys Lys Asp Cys Gly Lys Cys Phe Ser Arg Ser Ser His		
325	330	335
Leu Tyr Ser His Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys		
340	345	350
His Asp Cys Gly Lys Ser Phe Ser Gln Ser Ser Ala Leu Ile Val His		
355	360	365
Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Cys Gln Cys Gly		
370	375	380
Lys Ala Phe Ile Arg Lys Asn Asp Leu Ile Lys His Gln Arg Ile His		
385	390	395
400		
Val Gly Ala Glu Thr Tyr Lys Cys Asn Gln Cys Gly Ile Ile Phe Ser		
405	410	415
Gln Asn Ser Pro Phe Ile Val His Gln Ile Ala His Thr Gly Glu Gln		
420	425	430
Phe Leu Thr Cys Asn Gln Cys Gly Thr Ala Leu Val Asn Thr Ser Asn		
435	440	445
Leu Ile Gly Tyr Gln Thr Asn His Ile Arg Glu Asn Ala Tyr		
450	455	460

(2) INFORMATION FOR SEQ ID NO:118:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 35 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:118:

Pro Asp Ala Val Tyr Leu His Arg Ile Asp Leu Gly Pro Pro Ile Ser
1 5 10 15
Leu Glu Arg Leu Asp Val Gly Thr Asn Leu Gly Asn Ala Ile Ala Lys
20 25 30
Leu Glu Asp
35

(2) INFORMATION FOR SEQ ID NO:119:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 34 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:119:

Leu Glu Arg Leu Asp Val Gly Thr Asn Leu Gly Asn Ala Ile Ala Lys
1 5 10 15
Leu Glu Ala Lys Glu Leu Leu Glu Ser Ser Asp Gln Ile Leu Arg Ser
20 25 30
Met Lys

(2) INFORMATION FOR SEQ ID NO:120:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 47 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:120:

Thr Trp Gln Glu Trp Glu Arg Lys Val Asp Phe Leu Glu Glu Asn Ile
1 5 10 15
Thr Ala Leu Leu Glu Glu Ala Gln Ile Gln Gln Glu Lys Asn Met Tyr
20 25 30
Glu Leu Gln Lys Leu Asn Ser Trp Asp Val Phe Gly Asn Trp Phe
35 40 45

(2) INFORMATION FOR SEQ ID NO:121:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 42 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:121:

Ile Glu Leu Ser Asn Ile Lys Glu Asn Lys Cys Asn Gly Thr Asp Ala
1 5 10 15

Lys Val Lys Leu Ile Lys Gln Glu Leu Asp Lys Tyr Lys Asn Ala Val
20 25 30

Thr Glu Leu Gln Leu Leu Met Gln Ser Thr
35 40

(2) INFORMATION FOR SEQ ID NO:122:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:122:

Val Ser Lys Gly Tyr Ser Ala Leu Arg Thr Gly Trp Tyr Thr Ser Val
1 5 10 15

Ile Thr Ile Glu Leu Ser Asn Ile Lys Glu Asn
20 25

(2) INFORMATION FOR SEQ ID NO:123:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:123:

Ala Phe Ile Arg Lys Ser Asp Glu Leu Leu His Asn Val
1 5 10

(2) INFORMATION FOR SEQ ID NO:124:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

- (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 17
(D) OTHER INFORMATION: /product= "OTHER"

/note= "X represents U, the standard designation for C-abu, a modified cysteine."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:124:

Tyr	Thr	Ser	Val	Ile	Thr	Ile	Glu	Leu	Ser	Asn	Ile	Lys	Glu	Asn	Lys
1					5				10				15		
Xaa	Asn	Gly	Thr	Asp	Ala	Lys	Val	Lys	Leu	Ile	Lys	Gln	Glu	Leu	Asp
		20					25					30			
Lys	Tyr	Lys													
		35													

(2) INFORMATION FOR SEQ ID NO:125:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 16
- (D) OTHER INFORMATION: /product= "OTHER"

/note= "X represents U, the standard designation for C-abu, a modified cysteine."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:125:

Thr	Ser	Val	Ile	Thr	Ile	Glu	Leu	Ser	Asn	Ile	Lys	Glu	Asn	Lys	Xaa
1					5				10				15		
Asn	Gly	Thr	Asp	Ala	Lys	Val	Lys	Leu	Ile	Lys	Gln	Glu	Leu	Asp	Lys
		20				25					30				
Tyr	Lys	Asn													
		35													

(2) INFORMATION FOR SEQ ID NO:126:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 15
- (D) OTHER INFORMATION: /product= "OTHER"

/note= "X represents U, the standard designation for C-abu, a modified cysteine."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:126:

Ser Val Ile Thr Ile Glu Leu Ser Asn Ile Lys Glu Asn Lys Xaa Asn

1

5

10

15

Gly Thr Asp Ala Lys Val Lys Leu Ile Lys Gln Glu Leu Asp Lys Tyr
20 25 30

Lys Asn Ala
35

(2) INFORMATION FOR SEQ ID NO:127:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 8
- (D) OTHER INFORMATION: /product= "OTHER"

/note= "X represents U, the standard designation for C-abu, a modified cysteine."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:127:

Ser Asn Ile Lys Glu Asn Lys Xaa Asn Gly Thr Asp Ala Lys Val Lys
1 5 10 15

Leu Ile Lys Gln Glu Leu Asp Lys Tyr Lys Asn Ala Val Thr Glu Leu
20 25 30

Gln Leu Leu
35

(2) INFORMATION FOR SEQ ID NO:128:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 5
- (D) OTHER INFORMATION: /product= "OTHER"

/note= "X represents U, the standard designation for C-abu, a modified cysteine."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:128:

Lys Glu Asn Lys Xaa Asn Gly Thr Asp Ala Lys Val Lys Leu Ile Lys
1 5 10 15

Gln Glu Leu Asp Lys Tyr Lys Asn Ala Val Thr Glu Leu Gln Leu Leu
20 25 30

Met Gln Ser
35

(2) INFORMATION FOR SEQ ID NO:129:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

- (ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 31
(D) OTHER INFORMATION: /product= "OTHER"

/note= "X represents U, the standard designation for C-abu, a modified cysteine."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:129:

Ala Val Ser Lys Gly Tyr Leu Ser Ala Leu Arg Thr Gly Trp Tyr Thr
1 5 10 15

Ser Val Ile Thr Ile Glu Leu Ser Asn Ile Lys Glu Asn Lys Xaa Asn
20 25 30

Gly Thr Asp Ala
35

(2) INFORMATION FOR SEQ ID NO:130:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:130:

Val Val Ser Leu Ser Asn Gly Val Ser Val Leu Thr Ser Lys Val Leu
1 5 10 15

Asp Leu Lys Asn Tyr Ile Asp Lys Gln Leu Leu
20 25

(2) INFORMATION FOR SEQ ID NO:131:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:131:

Leu Leu Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn Gly Val Ser

1

5

10

15

Val Leu Thr Ser Lys Val Leu Asp Leu Lys Asn Tyr
20 25

(2) INFORMATION FOR SEQ ID NO:132:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:132:

Val Leu His Leu Glu Gly Glu Val Asn Lys Ile Lys Ser Ala Leu Leu
1 5 10 15
Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn Gly
20 25

(2) INFORMATION FOR SEQ ID NO:133:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:133:

Leu Leu Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn Gly Val Ser
1 5 10 15
Val Leu Thr Ser Lys Val Leu Asp Leu Lys Asn Tyr
20 25

(2) INFORMATION FOR SEQ ID NO:134:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 37 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:134:

Ala Ser Gly Val Ala Val Ser Lys Val Leu His Leu Glu Gly Glu Val
1 5 10 15
Asn Lys Ile Lys Ser Ala Leu Leu Ser Thr Asn Lys Ala Val Val Ser
20 25 30

Leu Ser Asn Gly Val
35

(2) INFORMATION FOR SEQ ID NO:135:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:135:

Val Leu His Leu Glu Gly Glu Val Asn Lys Ile Lys Ser Ala Leu Leu
1 5 10 15

Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn Gly Val Ser Val Leu
20 25 30

Thr Ser Lys
35

(2) INFORMATION FOR SEQ ID NO:136:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:136:

Asn Asp Gln Lys Lys Leu Met Ser Asn Asn Val Gln Ile Val Arg Gln
1 5 10 15

Gln Ser Tyr Ser Ile Met Ser Ile Ile Lys Glu Glu
20 25

(2) INFORMATION FOR SEQ ID NO:137:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:137:

Ser Ile Ser Asn Ile Glu Thr Val Ile Glu Phe Gln Gln Lys Asn Asn
1 5 10 15

Arg Leu Leu Glu Ile Thr Arg Glu Phe Ser Val Asn Ala Gly Val Thr

20

25

30

Thr Pro Val Ser
35

(2) INFORMATION FOR SEQ ID NO:138:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:138:

Pro Ile Ile Asn Phe Tyr Asp Pro Leu Val Phe Pro Ser Asp Glu Phe
1 5 10 15
Asp Ala Ser Ile Ser Gln Val Asn Glu Lys Ile Asn Gln Ser Leu Ala
20 25 30
Phe Ile Arg
35

(2) INFORMATION FOR SEQ ID NO:139:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:139:

Arg Met Lys Gln Leu Glu Asp Lys Val Glu Glu Leu Leu Ser Lys Leu
1 5 10 15
Ala Phe Ile Arg Lys Ser Asp Glu Leu Leu His Asn Val
20 25

(2) INFORMATION FOR SEQ ID NO:140:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:140:

Ala Phe Ile Arg Lys Ser Asp Glu Leu Leu His Asn Val Asn Ala Gly
1 5 10 15

Lys Ser Thr

(2) INFORMATION FOR SEQ ID NO:141:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:141:

Phe Asp Ala Ser Ile Ser Gln Val Asn Glu Lys Ile Asn Gln Ser Leu
1 5 10 15

Ala Phe Ile

(2) INFORMATION FOR SEQ ID NO:142:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:142:

Ser Leu Ala Phe Ile Arg Lys Ser Asp Glu Leu Leu His Asn Val Asn
1 5 10 15

Ala Gly Lys Ser Thr
20

(2) INFORMATION FOR SEQ ID NO:143:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 33 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:143:

Phe Asp Ala Ser Ile Ser Gln Val Asn Glu Lys Ile Asn Gln Ser Leu
1 5 10 15

Ala Phe Ile Arg Lys Ser Asp Glu Leu Leu His Asn Val Asn Ala Gly
20 25 30

Lys

(2) INFORMATION FOR SEQ ID NO:144:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 33 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:144:

Ala	Ser	Ile	Ser	Gln	Val	Asn	Glu	Lys	Ile	Asn	Gln	Ser	Leu	Ala	Phe
1				5				10						15	
Ile	Arg	Lys	Ser	Asp	Glu	Leu	Leu	His	Asn	Val	Asn	Ala	Gly	Lys	Ser
	20						25						30		

Thr

(2) INFORMATION FOR SEQ ID NO:145:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:145:

Phe	Asp	Ala	Ser	Ile	Ser	Gln	Val	Asn	Glu	Lys	Ile	Asn	Gln	Ser	Leu
1					5				10					15	
Ala	Phe	Ile	Arg	Lys	Ser	Asp	Glu	Leu	Leu	His	Asn	Val	Asn	Ala	Gly
	20							25					30		
Lys	Ser	Thr													
		35													

(2) INFORMATION FOR SEQ ID NO:146:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:146:

Ala	Thr	Ser	Ala	Gln	Ile	Thr	Ala	Ala	Val	Ala	Leu	Val	Glu	Ala	Lys
1					5				10				15		

Gln Ala Arg Ser Asp Ile Glu Lys Leu Lys Glu Ala
20 25

(2) INFORMATION FOR SEQ ID NO:147:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:147:

Ala Ala Val Ala Leu Val Glu Ala Lys Gln Ala Arg Ser Asp Ile Glu
1 5 10 15

Lys Leu Lys Glu Ala Ile Arg Asp Thr Asn Lys Ala Val Gln Ser Val
20 25 30

Gln Ser Ser
35

(2) INFORMATION FOR SEQ ID NO:148:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:148:

Ala Lys Gln Ala Arg Ser Asp Ile Glu Lys Leu Lys Glu Ala Ile Arg
1 5 10 15

Asp Thr Asn Lys Ala Val Gln Ser Val Gln Ser Ser Ile Gly Asn Leu
20 25 30

Ile Val Ala
35

(2) INFORMATION FOR SEQ ID NO:149:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:149:

Ile Arg Asp Thr Asn Lys Ala Val Gln Ser Val Gln Ser Ser Ile Gly

1

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10

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Asn Leu Ile Val Ala Ile Lys Ser Val Gln Asp Tyr
20 25

(2) INFORMATION FOR SEQ ID NO:150:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:150:

Ala Val Gln Ser Val Gln Ser Ser Ile Gly Asn Leu Ile Val Ala Ile
1 5 10 15
Lys Ser Val Gln Asp Tyr Val Asn Lys Glu Ile Val
20 25

(2) INFORMATION FOR SEQ ID NO:151:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:151:

Leu Lys Glu Ala Ile Arg Asp Thr Asn Lys Ala Val Gln Ser Val Gln
1 5 10 15
Ser Ser Ile Gly Asn Leu Ile Val Ala Ile Lys Ser
20 25

(2) INFORMATION FOR SEQ ID NO:152:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:152:

Glu Trp Ile Arg Arg Ser Asn Gln Lys Leu Asp Ser Ile
1 5 10

(2) INFORMATION FOR SEQ ID NO:153:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:153:

Ile Asp Ile Ser Ile Glu Leu Asn Lys Ala Lys Ser Asp Leu Glu Glu
1 5 10 15

Ser Lys Glu Trp Ile Lys Lys Ser Asn Gln Lys Leu Asp Ser Ile Gly
20 25 30

Asn Trp His
35

(2) INFORMATION FOR SEQ ID NO:154:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:154:

Arg Met Lys Gln Leu Glu Asp Lys Val Glu Glu Leu Leu Ser Lys Leu
1 5 10 15

Glu Trp Ile Arg Arg Ser Asn Gln Lys Leu Asp Ser Ile
20 25

(2) INFORMATION FOR SEQ ID NO:155:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:155:

Asp Gln Gln Ile Lys Gln Tyr Lys Arg Leu Leu Asp Arg Leu Ile Ile
1 5 10 15

Pro Leu Tyr Asp Gly Leu Arg Gln Lys Asp Val Ile Val Ser Asn Gln
20 25 30

Glu Ser Asn
35

(2) INFORMATION FOR SEQ ID NO:156:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:156:

Tyr Ser Glu Leu Thr Asn Ile Phe Gly Asp Asn Ile Gly Ser Leu Gln
1 5 10 15
Glu Lys Gly Ile Lys Leu Gln Gly Ile Ala Ser Leu Tyr Arg Thr Asn
20 25 30
Ile Thr Glu Ile
35

(2) INFORMATION FOR SEQ ID NO:157:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:157:

Thr Ser Ile Thr Leu Gln Val Arg Leu Pro Leu Leu Thr Arg Leu Leu
1 5 10 15
Asn Thr Gln Ile Tyr Arg Val Asp Ser Ile Ser Tyr Asn Ile Gln Asn
20 25 30
Arg Glu Trp Tyr
35

(2) INFORMATION FOR SEQ ID NO:158:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 57 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:158:

Asn Lys Ser Leu Glu Gln Ile Trp Asn Asn Met Thr Trp Met Glu Trp
1 5 10 15
Asp Arg Glu Ile Asn Asn Tyr Thr Ser Leu Ile His Ser Leu Ile Glu

20

25

30

Glu Gln Asn Gln Gln Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp
35 40 45

Lys Trp Ala Ser Leu Trp Asn Trp Phe
50 55

(2) INFORMATION FOR SEQ ID NO:159:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:159:

Trp Met Glu Trp Asp Arg Glu Ile Asn Asn Tyr Thr Ser Leu Ile Gly
1 5 10 15
Ser Leu Ile Glu Glu Ser Gln Asn Gln Gln Glu Lys Asn Glu Gln Glu
20 25 30
Leu Leu Glu
35

(2) INFORMATION FOR SEQ ID NO:160:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 49 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:160:

Tyr Thr Ser Leu Ile His Ser Leu Ile Glu Glu Ser Gln Asn Gln Gln
1 5 10 15
Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu
20 25 30
Trp Asn Trp Phe Asn Ile Thr Asn Trp Leu Trp Leu Ile Lys Ile Phe
35 40 45
Ile

(2) INFORMATION FOR SEQ ID NO:161:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown



(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:161:

Glu Ala Ala Ala Arg Glu Ala Ala Ala Arg Glu Ala Ala Ala Arg Leu
1 5 10 15

Glu Leu Asp Lys Trp Ala Ser Leu Trp Asn Trp Phe
20 25

(2) INFORMATION FOR SEQ ID NO:162:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:162:

Arg Met Lys Gln Leu Glu Asp Lys Val Glu Glu Leu Leu Ser Lys Leu
1 5 10 15

Glu Leu Asp Lys Trp Ala Ser Leu Trp Asn Trp Phe
20 25

(2) INFORMATION FOR SEQ ID NO:163:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:163:

Phe Trp Asn Trp Leu Ser Ala Trp Lys Asp Leu Glu Leu Lys Ser Leu
1 5 10 15

Leu Glu Glu Val Lys Asp Glu Leu Gln Lys Met Arg
20 25

(2) INFORMATION FOR SEQ ID NO:164:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:164:

Arg Met Lys Gln Leu Glu Asp Lys Val Glu Glu Leu Leu Ser Lys Asn
1 5 10 15

Tyr His Leu Glu Asn Glu Leu Glu Leu Asp Lys Trp Ala Ser Leu Trp
20 25 30

Asn Trp Phe
35

(2) INFORMATION FOR SEQ ID NO:165:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 30 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:165:

Phe Trp Asn Trp Leu Ser Ala Trp Lys Asp Leu Glu Leu Tyr Pro Gly
1 5 10 15

Ser Leu Glu Leu Asp Lys Trp Ala Ser Leu Trp Asn Trp Phe
20 25 30

(2) INFORMATION FOR SEQ ID NO:166:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 15 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:166:

Cys Leu Glu Leu Asp Lys Trp Ala Ser Leu Trp Asn Trp Phe Cys
1 5 10 15

(2) INFORMATION FOR SEQ ID NO:167:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 15 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:167:

Cys Leu Glu Leu Asp Lys Trp Ala Ser Leu Ala Asn Trp Phe Cys
1 5 10 15

(2) INFORMATION FOR SEQ ID NO:168:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:168:

Cys Leu Glu Leu Asp Lys Trp Ala Ser Leu Trp Asn Phe Phe Cys
1 5 10 15

(2) INFORMATION FOR SEQ ID NO:169:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:169:

Leu Glu Leu Asp Lys Trp Ala Ser Leu Ala Asn Ala Phe
1 5 10

(2) INFORMATION FOR SEQ ID NO:170:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:170:

Leu Glu Leu Asp Lys Trp Ala Ser Leu Phe Asn Phe Phe
1 5 10

(2) INFORMATION FOR SEQ ID NO:171:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:171:

Leu Glu Leu Asp Lys Trp Ala Ser Leu Trp Asn Ala Phe
1 5 10

(2) INFORMATION FOR SEQ ID NO:172:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:172:

Leu Glu Leu Asp Lys Trp Ala Ser Leu Trp Asn Trp Ala
1 5 10

(2) INFORMATION FOR SEQ ID NO:173:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:173:

Leu Glu Leu Asp Lys Trp Ala Ser Ala Trp Asn Trp Phe
1 5 10

(2) INFORMATION FOR SEQ ID NO:174:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:174:

Leu Glu Leu Asp Lys Ala Ala Ser Leu Trp Asn Trp Phe
1 5 10

(2) INFORMATION FOR SEQ ID NO:175:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:175:

Leu Lys Leu Asp Lys Trp Ala Ser Leu Trp Asn Trp Phe
1 5 10

(2) INFORMATION FOR SEQ ID NO:176:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:176:

Leu Glu Leu Lys Lys Trp Ala Ser Leu Trp Asn Trp Phe
1 5 10

(2) INFORMATION FOR SEQ ID NO:177:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 39 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:177:

Cys Gly Gly Tyr Thr Ser Leu Ile His Ser Leu Ile Glu Glu Ser Gln
1 5 10 15
Asn Gln Gln Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp
20 25 30
Ala Ser Leu Trp Asn Trp Phe
35

(2) INFORMATION FOR SEQ ID NO:178:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:178:

Tyr Thr Ser Leu Ile His Ser Leu Ile Glu Glu Ser Gln Asn Gln Gln
1 5 10 15
Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu
20 25 30
Trp Asn Ala Phe
35

(2) INFORMATION FOR SEQ ID NO:179:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:179:

Tyr Thr Ser Leu Ile His Ser Leu Ile Glu Glu Ser Gln Asn Gln Gln
1 5 10 15
Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu
20 25 30
Ala Asn Trp Phe
35

(2) INFORMATION FOR SEQ ID NO:180:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:180:

Tyr Thr Ser Leu Ile His Ser Leu Ile Glu Glu Ser Gln Asn Gln Gln
1 5 10 15
Glu Lys Asn Glu Gln Gln Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu
20 25 30
Trp Asn Trp Phe
35

(2) INFORMATION FOR SEQ ID NO:181:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:181:

Tyr Thr Ser Leu Ile His Ser Leu Ile Glu Glu Ser Gln Asn Gln Gln
1 5 10 15
Glu Lys Asn Glu Gln Glu Leu Leu Gln Leu Asp Lys Trp Ala Ser Leu
20 25 30
Trp Asn Trp Phe
35

(2) INFORMATION FOR SEQ ID NO:182:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:182:

Tyr Thr Ser Leu Ile His Ser Leu Ile Glu Glu Ser Gln Asn Gln Gln
1 5 10 15
Glu Lys Asn Gln Gln Glu Leu Leu Gln Leu Asp Lys Trp Ala Ser Leu
20 25 30
Trp Asn Trp Phe
35

(2) INFORMATION FOR SEQ ID NO:183:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:183:

Tyr Thr Ser Leu Ile Gln Ser Leu Ile Glu Glu Ser Gln Asn Gln Gln
1 5 10 15
Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu
20 25 30
Trp Asn Trp Phe
35

(2) INFORMATION FOR SEQ ID NO:184:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:184:

Tyr Thr Ser Leu Ile His Ser Leu Ile Glu Glu Ser Gln Gln Gln Gln
1 5 10 15
Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu
20 25 30
Trp Asn Trp Phe
35

(2) INFORMATION FOR SEQ ID NO:185:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 36 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:185:

Tyr Thr Ser Leu Ile His Ser Leu Ile Glu Glu Ser Gln Asn Gln Gln
1 5 10 15
Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asn Lys Trp Ala Ser Leu
20 25 30
Trp Asn Trp Phe
35

(2) INFORMATION FOR SEQ ID NO:186:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 36 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:186:

Tyr Thr Ser Leu Ile His Ser Leu Ile Glu Gln Ser Gln Asn Gln Gln
1 5 10 15
Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu
20 25 30
Trp Asn Trp Phe
35

(2) INFORMATION FOR SEQ ID NO:187:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:187:

Tyr Thr Ser Leu Ile His Ser Leu Ile Gln Glu Ser Gln Asn Gln Gln
1 5 10 15
Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu
20 25 30
Trp Asn Trp Phe
35

(2) INFORMATION FOR SEQ ID NO:188:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:188:

Tyr Thr Ser Leu Ile His Ser Leu Ile Gln Gln Ser Gln Asn Gln Gln
1 5 10 15
Gln Lys Asn Gln Gln Gln Leu Leu Gln Leu Asp Lys Trp Ala Ser Leu
20 25 30
Trp Asn Trp Phe
35

(2) INFORMATION FOR SEQ ID NO:189:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:189:

Tyr Thr Ser Leu Ile His Ser Leu Ile Glu Glu Ser Gln Asn Gln Gln
1 5 10 15
Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu
20 25 30

Ala Asn Ala Ala
35

(2) INFORMATION FOR SEQ ID NO:190:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:190:

Tyr Thr Ser Leu Ile His Ser Leu Ile Glu Glu Ser Gln Asn Gln Gln
1 5 10 15
Glu Lys Asn Glu Gln Gln Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu
20 25 30
Trp Asn Trp Phe
35

(2) INFORMATION FOR SEQ ID NO:191:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:191:

Tyr Thr Ser Leu Ile Gln Ser Leu Ile Glu Glu Ser Gln Asn Gln Gln
1 5 10 15
Glu Lys Asn Glu Gln Gln Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu
20 25 30
Trp Asn Trp Phe
35

(2) INFORMATION FOR SEQ ID NO:192:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:192:

Tyr Thr Ser Leu Ile His Ser Leu Ile Glu Glu Ser Gln Asn Gln Gln

1 5 10 15
Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu
20 25 30
Phe Asn Phe Phe
35

(2) INFORMATION FOR SEQ ID NO:193:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:193:

Tyr Thr Ser Leu Ile His Ser Leu Ile Glu Glu Ser Gln Asn Leu Gln
1 5 10 15
Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu
20 25 30
Trp Asn Trp Phe
35

(2) INFORMATION FOR SEQ ID NO:194:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:194:

Tyr Thr Ser Leu Ile His Ser Leu Ile Glu Glu Ser Gln Asn Gln Gln
1 5 10 15
Glu Lys Leu Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu
20 25 30
Trp Asn Trp Phe
35

(2) INFORMATION FOR SEQ ID NO:195:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:195:

Tyr Thr Ser Leu Ile His Ser Leu Ile Glu Glu Ser Gln Asn Gln Gln
1 5 10 15

Glu Lys Asn Glu Gln Glu Leu Leu Glu Phe Asp Lys Trp Ala Ser Leu
20 25 30

Trp Asn Trp Phe
35

(2) INFORMATION FOR SEQ ID NO:196:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:196:

Tyr Thr Ser Leu Ile His Ser Leu Ile Glu Glu Ser Gln Asn Gln Gln
1 5 10 15

Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Pro Ala Ser Leu
20 25 30

Trp Asn Trp Phe
35

(2) INFORMATION FOR SEQ ID NO:197:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:197:

Tyr Thr Ser Leu Ile His Ser Leu Ile Glu Glu Ser Gln Asn Gln Gln
1 5 10 15

Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Pro
20 25 30

Trp Asn Trp Phe
35

(2) INFORMATION FOR SEQ ID NO:198:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:198:

Tyr Thr Ser Leu Ile His Ser Leu Ile Glu Glu Ser Gln Asn Gln Gln
1 5 10 15

Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu
20 25 30

Trp Asn Ser Phe
35

(2) INFORMATION FOR SEQ ID NO:199:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:199:

Leu Leu Asp Asn Phe Glu Ser Thr Trp Glu Gln Ser Lys Glu Leu Trp
1 5 10 15

Glu Gln Gln Glu Ile Ser Ile Gln Asn Leu His Lys Ser Ala Leu Gln
20 25 30

Glu Tyr Trp Asn
35

(2) INFORMATION FOR SEQ ID NO:200:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:200:

Leu Ser Asn Leu Leu Gln Ile Ser Asn Asn Ser Asp Glu Trp Leu Glu
1 5 10 15

Ala Leu Glu Ile Glu His Glu Lys Trp Lys Leu Thr Gln Trp Gln Ser
20 25 30

Tyr Glu Gln Phe
35

(2) INFORMATION FOR SEQ ID NO:201:

- (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 63 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:201:

Met Thr Leu Thr Val Gln Ala Arg Gln Leu Leu Ser Gly Ile Val Gln
1 5 10 15

Gln Gln Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu
20 25 30

Gln Leu Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala
35 40 45

Val Glu Arg Tyr Leu Lys Asp Gln Gln Leu Leu Gly Ile Trp Gly
50 55 60

(2) INFORMATION FOR SEQ ID NO:202:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 45 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:202:

Ser Glu Leu Glu Ile Lys Arg Tyr Lys Asn Arg Val Ala Ser Arg Lys
1 5 10 15

Cys Arg Ala Lys Phe Gln Leu Leu Gln His Tyr Arg Glu Val Ala Ala
20 25 30

Ala Lys Ser Ser Glu Asn Asp Arg Leu Arg Leu Leu Leu
35 40 45

(2) INFORMATION FOR SEQ ID NO:203:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 45 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:203:

Ala Ser Arg Lys Cys Arg Ala Lys Phe Lys Gln Leu Leu Gln His Tyr
1 5 10 15

Arg Glu Val Ala Ala Lys Ser Ser Glu Asn Asp Arg Leu Arg Leu

20

25

30

Leu Leu Lys Gln Met Cys Pro Ser Leu Asp Val Asp Ser
35 40 45

(2) INFORMATION FOR SEQ ID NO:204:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:204:

Leu Leu Gln His Tyr Arg Glu Val Ala Ala Ala Lys Ser Ser Glu Asn
1 5 10 15

Asp Arg Leu Arg Leu Leu Lys Gln Met Cys Pro Ser Leu Asp Val
20 25 30

Asp Ser Ile
35

(2) INFORMATION FOR SEQ ID NO:205:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 45 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:205:

Leu Gln His Tyr Arg Glu Val Ala Ala Ala Lys Ser Ser Glu Asn Asp
1 5 10 15

Arg Leu Arg Leu Leu Lys Gln Met Cys Pro Ser Leu Asp Val Asp
20 25 30

Ser Ile Ile Pro Arg Thr Pro Asp Val Leu His Glu Asp
35 40 45

(2) INFORMATION FOR SEQ ID NO:206:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:206:

52J

F

Ser Ser Glu Asn Asp Arg Leu Arg Leu Leu Lys Gln Met Cys Pro
1 5 10 15
Ser Leu Asp Val Asp Ser Ile Ile Pro Arg Thr Pro Asp Val Leu His
20 25 30
Glu Asp Leu
35

(2) INFORMATION FOR SEQ ID NO:207:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 37 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:207:

Ser Glu Asn Asp Arg Leu Arg Leu Leu Lys Gln Met Cys Pro Ser
1 5 10 15
Leu Asp Val Asp Ser Ile Ile Pro Arg Thr Pro Asp Val Leu His Glu
20 25 30
Asp Leu Leu Asn Phe
35

(2) INFORMATION FOR SEQ ID NO:208:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 46 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:208:

Pro Leu Leu Val Leu Gln Ala Gly Phe Phe Leu Leu Thr Arg Ile Leu
1 5 10 15
Thr Ile Pro Gln Ser Leu Asp Ser Trp Trp Thr Ser Leu Asn Phe Leu
20 25 30
Gly Gly Thr Thr Val Cys Leu Gly Gln Asn Ser Gln Ser Pro
35 40 45

(2) INFORMATION FOR SEQ ID NO:209:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 57 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:209:

Pro Gly Tyr Arg Trp Met Cys Leu Arg Arg Phe Ile Ile Phe Leu Phe
1 5 10 15

Ile Leu Leu Leu Cys Leu Ile Phe Leu Leu Val Leu Leu Asp Tyr Gln
20 25 30

Gly Met Leu Pro Val Cys Pro Leu Ile Pro Gly Ser Ser Thr Ser Thr
35 40 45

Gly Pro Cys Arg Thr Cys Met Thr Thr
50 55

(2) INFORMATION FOR SEQ ID NO:210:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:210:

Xaa Thr Ser Val Ile Thr Ile Glu Leu Ser Asn Ile Lys Glu Asn Lys
1 5 10 15

Cys Asn Gly Thr Asp Ala Lys Val Lys Leu Ile Lys Gln Glu Leu Asp
20 25 30

Lys Tyr Lys Asn Xaa
35

(2) INFORMATION FOR SEQ ID NO:211:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:211:

Xaa	Ser	Val	Ile	Thr	Ile	Glu	Leu	Ser	Asn	Ile	Lys	Glu	Asn	Lys	Cys
1					5					10				15	
Asn	Gly	Thr	Asp	Ala	Lys	Val	Lys	Leu	Ile	Lys	Gln	Glu	Leu	Asp	Lys
					20				25				30		
Tyr	Lys	Asn	Ala	Xaa											
				35											

(2) INFORMATION FOR SEQ ID NO:212:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:212:

Xaa	Val	Ile	Thr	Ile	Glu	Leu	Ser	Asn	Ile	Lys	Glu	Asn	Lys	Cys	Asn
1					5				10				15		
Gly	Thr	Asp	Ala	Lys	Val	Lys	Leu	Ile	Lys	Gln	Glu	Leu	Asp	Lys	Tyr
					20				25				30		

Lys Asn Ala Val Xaa
35

(2) INFORMATION FOR SEQ ID NO:213:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 35
- (D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:213:

Xaa Val Ala Val Ser Lys Val Leu His Leu Glu Gly Glu Val Asn Lys
1 5 10 15
Ile Ala Leu Leu Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn Gly
20 25 30
Val Ser Xaa
35

(2) INFORMATION FOR SEQ ID NO:214:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 35

(D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:214:

Xaa Ala Val Ser Lys Val Leu His Leu Glu Gly Glu Val Asn Lys Ile
1 5 10 15
Ala Leu Leu Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn Gly Val
20 25 30
Ser Val Xaa
35

(2) INFORMATION FOR SEQ ID NO:215:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates."

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 35
(D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:215:

Xaa Val Ser Lys Val Leu His Leu Glu Gly Glu Val Asn Lys Ile Ala
1 5 10 15
Leu Leu Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn Gly Val Ser
20 25 30
Val Leu Xaa
35

(2) INFORMATION FOR SEQ ID NO:216:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

(A) NAME/KEY: Modified-site
(B) LOCATION: 35
(D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:216:

Xaa Ser Lys Val Leu His Leu Glu Gly Glu Val Asn Lys Ile Ala Leu
1 5 10 15
Leu Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn Gly Val Ser Val
20 25 30
Leu Thr Xaa
35

(2) INFORMATION FOR SEQ ID NO:217:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

(A) NAME/KEY: Modified-site
(B) LOCATION: 35
(D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:217:

Xaa Lys Val Leu His Leu Glu Gly Glu Val Asn Lys Ile Ala Leu Leu
1 5 10 15
Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn Gly Val Ser Val Leu
20 25 30
Thr Ser Xaa

(2) INFORMATION FOR SEQ ID NO:218:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 35
- (D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:218:

Xaa	Leu	Glu	Gly	Glu	Val	Asn	Lys	Ile	Ala	Leu	Leu	Ser	Thr	Asn	Lys
1				5					10				15		
Ala	Val	Val	Ser	Leu	Ser	Asn	Gly	Val	Ser	Val	Leu	Thr	Ser	Lys	Val
				20					25				30		
Leu	Asp	Xaa													
		35													

(2) INFORMATION FOR SEQ ID NO:219:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 35
- (D) OTHER INFORMATION:/note="Xaa may represent a carboxyl

group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:219:

Xaa Gly Glu Val Asn Lys Ile Ala Leu Leu Ser Thr Asn Lys Ala Val
1 5 10 15
Val Ser Leu Ser Asn Gly Val Ser Val Leu Thr Ser Lys Val Leu Asp
20 25 30
Leu Lys Xaa
35

(2) INFORMATION FOR SEQ ID NO:220:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 35
- (D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:220:

Xaa Glu Val Asn Lys Ile Ala Leu Leu Ser Thr Asn Lys Ala Val Val
1 5 10 15
Ser Leu Ser Asn Gly Val Ser Val Leu Thr Ser Lys Val Leu Asp Leu
20 25 30
Lys Asn Xaa
35

(2) INFORMATION FOR SEQ ID NO:221:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site

(B) LOCATION: 1
(D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

(A) NAME/KEY: Modified-site
(B) LOCATION: 35
(D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:221:

Xaa Val Asn Lys Ile Ala Leu Leu Ser Thr Asn Lys Ala Val Val Ser
1 5 10 15
Leu Ser Asn Gly Val Ser Val Leu Thr Ser Lys Val Leu Asp Leu Lys
20 25 30
Asn Tyr Xaa
35

(2) INFORMATION FOR SEQ ID NO:222:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

(A) NAME/KEY: Modified-site
(B) LOCATION: 35
(D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:222:

Xaa Asn Lys Ile Ala Leu Leu Ser Thr Asn Lys Ala Val Val Ser Leu
1 5 10 15
Ser Asn Gly Val Ser Val Leu Thr Ser Lys Val Leu Asp Leu Lys Asn
20 25 30
Tyr Ile Xaa
35

(2) INFORMATION FOR SEQ ID NO:223:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 35
- (D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:223:

Xaa	Lys	Ile	Ala	Leu	Leu	Ser	Thr	Asn	Lys	Ala	Val	Val	Ser	Leu	Ser
1				5				10					15		
Asn	Gly	Val	Ser	Val	Leu	Thr	Ser	Lys	Val	Leu	Asp	Leu	Lys	Asn	Tyr
				20					25				30		
Ile	Asp	Xaa													
		35													

(2) INFORMATION FOR SEQ ID NO:224:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 35
- (D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited

to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:224:

Xaa Ile Ala Leu Leu Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn
1 5 10 15
Gly Val Ser Val Leu Thr Ser Lys Val Leu Asp Leu Lys Asn Tyr Ile
20 25 30
Asp Lys Xaa
35

(2) INFORMATION FOR SEQ ID NO:225:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 35
- (D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:225:

Xaa Ala Leu Leu Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn Gly
1 5 10 15
Val Ser Val Leu Thr Ser Lys Val Leu Asp Leu Lys Asn Tyr Ile Asp
20 25 30
Lys Gln Xaa
35

(2) INFORMATION FOR SEQ ID NO:226:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa may represent an amino

group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 35
- (D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:226:

Xaa Val Ala Val Ser Lys Val Leu His Leu Glu Gly Glu Val Asn Lys
1 5 10 15
Ile Ala Leu Leu Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn Gly
20 25 30
Val Ser Xaa
35

(2) INFORMATION FOR SEQ ID NO:227:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 35
- (D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:227:

Xaa Ala Val Ser Lys Val Leu His Leu Glu Gly Glu Val Asn Lys Ile
1 5 10 15
Ala Leu Leu Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn Gly Val
20 25 30
Ser Val Xaa
35

(2) INFORMATION FOR SEQ ID NO:228:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 35
(D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:228:

Xaa Val Ser Lys Val Leu His Leu Glu Gly Glu Val Asn Lys Ile Ala
1 5 10 15
Leu Leu Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn Gly Val Ser
20 25 30
Val Leu Xaa
35

(2) INFORMATION FOR SEQ ID NO:229:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 35
(D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:229:

Xaa Ser Lys Val Leu His Leu Glu Gly Glu Val Asn Lys Ile Ala Leu
1 5 10 15
Leu Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn Gly Val Ser Val
20 25 30
Leu Thr Xaa
35

(2) INFORMATION FOR SEQ ID NO:230:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 35
- (D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:230:

Xaa Lys Val Leu His Leu Glu Gly Glu Val Asn Lys Ile Ala Leu Leu
1 5 10 15
Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn Gly Val Ser Val Leu
20 25 30
Thr Ser Xaa
35

(2) INFORMATION FOR SEQ ID NO:231:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group;

a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 35
- (D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:231:

Xaa	Leu	Glu	Gly	Glu	Val	Asn	Lys	Ile	Ala	Leu	Leu	Ser	Thr	Asn	Lys
1			5					10					15		
Ala	Val	Val	Ser	Leu	Ser	Asn	Gly	Val	Ser	Val	Leu	Thr	Ser	Lys	Val
								20				25		30	
Leu	Asp	Xaa													
		35													

(2) INFORMATION FOR SEQ ID NO:232:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 35
- (D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:232:

Xaa	Gly	Glu	Val	Asn	Lys	Ile	Ala	Leu	Leu	Ser	Thr	Asn	Lys	Ala	Val
1				5				10			15				
Val	Ser	Leu	Ser	Asn	Gly	Val	Ser	Val	Leu	Thr	Ser	Lys	Val	Leu	Asp
								20			25		30		
Leu	Lys	Xaa													
		35													

(2) INFORMATION FOR SEQ ID NO:233:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids

- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 35
- (D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:233:

Xaa	Glu	Val	Asn	Lys	Ile	Ala	Leu	Leu	Ser	Thr	Asn	Lys	Ala	Val	Val
1				5					10			15			
Ser	Leu	Ser	Asn	Gly	Val	Ser	Val	Leu	Thr	Ser	Lys	Val	Leu	Asp	Leu
				20				25				30			
Lys	Asn	Xaa													
		35													

(2) INFORMATION FOR SEQ ID NO:234:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 35
- (D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:234:

Xaa Val Asn Lys Ile Ala Leu Leu Ser Thr Asn Lys Ala Val Val Ser
1 5 10 15
Leu Ser Asn Gly Val Ser Val Leu Thr Ser Lys Val Leu Asp Leu Lys
20 25 30
Asn Tyr Xaa
35

(2) INFORMATION FOR SEQ ID NO:235:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 35
- (D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:235:

Xaa Asn Lys Ile Ala Leu Leu Ser Thr Asn Lys Ala Val Val Ser Leu
1 5 10 15
Ser Asn Gly Val Ser Val Leu Thr Ser Lys Val Leu Asp Leu Lys Asn
20 25 30
Tyr Ile Xaa
35

(2) INFORMATION FOR SEQ ID NO:236:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited

to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 35
- (D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:236:

Xaa Lys Ile Ala Leu Leu Ser Thr Asn Lys Ala Val Val Ser Leu Ser
1 5 10 15
Asn Gly Val Ser Val Leu Thr Ser Lys Val Leu Asp Leu Lys Asn Tyr
20 25 30
Ile Asp Xaa
35

(2) INFORMATION FOR SEQ ID NO:237:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 35
- (D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:237:

Xaa Ile Ala Leu Leu Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn
1 5 10 15
Gly Val Ser Val Leu Thr Ser Lys Val Leu Asp Leu Lys Asn Tyr Ile
20 25 30
Asp Lys Xaa
35

(2) INFORMATION FOR SEQ ID NO:238:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 35 amino acids
- (B) TYPE: amino acid

- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa may represent an amino group, a hydrophobic group, including but not limited to carbobenzoyl, dansyl, or T-butyloxycarbonyl; an acetyl group; a 9-fluorenylmethoxy-carbonyl (FMOC) group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 35
- (D) OTHER INFORMATION:/note="Xaa may represent a carboxyl group; an amido group; a T-butyloxycarbonyl group; a macromolecular carrier group including but not limited to lipid-fatty acid conjugates, polyethylene glycol, or carbohydrates.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:238:

Xaa	Ala	Leu	Leu	Ser	Thr	Asn	Lys	Ala	Val	Val	Ser	Leu	Ser	Asn	Gly
1							5				10			15	
Val	Ser	Val	Leu	Thr	Ser	Lys	Val	Leu	Asp	Leu	Lys	Asn	Tyr	Ile	Asp
							20			25			30		
Lys	Gln	Xaa													
		35													

(2) INFORMATION FOR SEQ ID NO:239:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 49 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 49
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:239:

Xaa	Pro	Leu	Leu	Val	Leu	Gln	Ala	Gly	Phe	Phe	Leu	Leu	Thr	Arg	Ile
1								5			10			15	
Leu	Thr	Ile	Pro	Gln	Ser	Leu	Asp	Ser	Trp	Trp	Thr	Ser	Leu	Asn	Phe
								20		25			30		

Leu Gly Gly Gly Thr Thr Val Cys Leu Gly Gln Asn Ser Gln Ser Pro
35 40 45
Xaa

(2) INFORMATION FOR SEQ ID NO:240:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:240:

Xaa Pro Leu Leu Val Leu Gln Ala Gly Phe Phe Leu Leu Thr Arg Ile
1 5 10 15
Leu Thr Ile Pro Gln Ser Leu Asp Ser Trp Trp Thr Ser Leu Asn Phe
20 25 30
Leu Gly Gly Thr Xaa
35

(2) INFORMATION FOR SEQ ID NO:241:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:241:

Xaa Leu Leu Val Leu Gln Ala Gly Phe Phe Leu Leu Thr Arg Ile Leu

1 5 10 15
Thr Ile Pro Gln Ser Leu Asp Ser Trp Trp Thr Ser Leu Asn Phe Leu
20 25 30
Gly Gly Thr Thr Xaa
35

(2) INFORMATION FOR SEQ ID NO:242:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:242:

Xaa Leu Val Leu Gln Ala Gly Phe Phe Leu Leu Thr Arg Ile Leu Thr
1 5 10 15
Ile Pro Gln Ser Leu Asp Ser Trp Trp Thr Ser Leu Asn Phe Leu Gly
20 25 30
Gly Thr Thr Val Xaa
35

(2) INFORMATION FOR SEQ ID NO:243:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:243:

Xaa Leu Gln Ala Gly Phe Phe Leu Leu Thr Arg Ile Leu Thr Ile Pro
1 5 10 15
Gln Ser Leu Asp Ser Trp Trp Thr Ser Leu Asn Gly Leu Gly Gly Thr
20 25 30
Thr Val Cys Leu Xaa
35

(2) INFORMATION FOR SEQ ID NO:244:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:244:

Xaa Gln Ala Gly Phe Phe Leu Leu Thr Arg Ile Leu Thr Ile Pro Gln
1 5 10 15
Ser Leu Asp Ser Trp Trp Thr Ser Leu Asn Phe Leu Gly Gly Thr Thr
20 25 30
Val Cys Leu Gly Xaa
35

(2) INFORMATION FOR SEQ ID NO:245:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:245:

Xaa Ala Gly Phe Phe Leu Leu Thr Arg Ile Leu Thr Ile Pro Gln Ser
1 5 10 15
Leu Asp Ser Trp Trp Thr Ser Leu Asn Phe Leu Gly Gly Thr Thr Val
20 25 30
Cys Leu Gly Gln Xaa
35

(2) INFORMATION FOR SEQ ID NO:246:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:246:

Xaa Gly Phe Phe Leu Leu Thr Arg Ile Leu Thr Ile Pro Gln Ser Leu
1 5 10 15
Asp Ser Trp Trp Thr Ser Leu Asn Phe Leu Gly Gly Thr Thr Val Cys
20 25 30
Leu Gly Gln Asn Xaa
35

(2) INFORMATION FOR SEQ ID NO:247:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:247:

Xaa Phe Phe Leu Leu Thr Arg Ile Leu Thr Ile Pro Gln Ser Leu Asp
1 5 10 15
Ser Trp Trp Thr Ser Leu Asn Phe Leu Gly Gly Thr Thr Val Cys Leu
20 25 30
Gly Gln Asn Ser Xaa
35

(2) INFORMATION FOR SEQ ID NO:248:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:248:

Xaa Phe Leu Leu Thr Arg Ile Leu Thr Ile Pro Gln Ser Leu Asp Ser
1 5 10 15
Trp Trp Thr Ser Leu Asn Phe Leu Gly Gly Thr Thr Val Cys Leu Gly
20 25 30
Gln Asn Ser Gln Xaa
35

(2) INFORMATION FOR SEQ ID NO:249:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:249:

Xaa Leu Leu Thr Arg Ile Leu Thr Ile Pro Gln Ser Leu Asp Ser Trp
1 5 10 15
Trp Thr Ser Leu Asn Phe Leu Gly Gly Thr Thr Val Cys Leu Gly Gln
20 25 30
Asn Ser Gln Ser Xaa
35

(2) INFORMATION FOR SEQ ID NO:250:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 59 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 59
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:250:

Xaa Pro Gly Tyr Arg Trp Met Cys Leu Arg Arg Phe Ile Ile Phe Leu
1 5 10 15
Phe Ile Leu Leu Leu Cys Leu Ile Phe Leu Leu Val Leu Leu Asp Tyr
20 25 30
Gln Gly Met Leu Pro Val Cys Pro Leu Ile Pro Gly Ser Ser Thr Ser
35 40 45
Thr Gly Pro Cys Arg Thr Cys Met Thr Thr Xaa
50 55

(2) INFORMATION FOR SEQ ID NO:251:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.



(xi) SEQUENCE DESCRIPTION: SEQ ID NO:251:

Xaa Pro Gly Tyr Arg Trp Met Cys Leu Arg Arg Phe Ile Ile Phe Leu
1 5 10 15
Phe Ile Leu Leu Leu Cys Leu Ile Phe Leu Leu Val Leu Leu Asp Tyr
20 25 30
Gln Gly Met Leu Xaa
35

(2) INFORMATION FOR SEQ ID NO:252:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:252:

Xaa Gly Tyr Arg Trp Met Cys Leu Arg Arg Phe Ile Ile Phe Leu Phe
1 5 10 15
Ile Leu Leu Leu Cys Leu Ile Phe Leu Leu Val Leu Leu Asp Tyr Gln
20 25 30
Gly Met Leu Pro Xaa
35

(2) INFORMATION FOR SEQ ID NO:253:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:253:

Xaa Tyr Arg Trp Met Cys Leu Arg Arg Phe Ile Ile Phe Leu Phe Ile
1 5 10 15
Leu Leu Leu Cys Leu Ile Phe Leu Leu Val Leu Leu Asp Tyr Gln Gly
20 25 30
Met Leu Pro Val Xaa
35

(2) INFORMATION FOR SEQ ID NO:254:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid

(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

(A) NAME/KEY: Modified-site
(B) LOCATION: 37
(D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:254:

Xaa Arg Trp Met Cys Leu Arg Arg Phe Ile Ile Phe Leu Phe Ile Leu
1 5 10 15
Leu Leu Cys Leu Ile Phe Leu Leu Val Leu Leu Asp Tyr Gln Gly Met
20 25 30
Leu Pro Val Cys Xaa
35

(2) INFORMATION FOR SEQ ID NO:255:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 37 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

(A) NAME/KEY: Modified-site
(B) LOCATION: 37
(D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:255:

Xaa Trp Met Cys Leu Arg Arg Phe Ile Ile Phe Leu Phe Ile Leu
1 5 10 15
Leu Cys Leu Ile Phe Leu Leu Val Leu Leu Asp Tyr Gln Gly Met Leu
20 25 30
Pro Val Cys Pro Xaa
35

(2) INFORMATION FOR SEQ ID NO:256:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 37 amino acids

- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:256:

Xaa	Met	Cys	Leu	Arg	Arg	Phe	Ile	Ile	Phe	Leu	Phe	Ile	Leu	Leu	Leu
1							5			10				15	
Cys	Leu	Ile	Phe	Leu	Leu	Val	Leu	Leu	Asp	Tyr	Gln	Gly	Met	Leu	Pro
						20			25				30		
Val	Cys	Pro	Ile	Xaa											
					35										

(2) INFORMATION FOR SEQ ID NO:257:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:257:

Xaa	Cys	Leu	Arg	Arg	Phe	Ile	Ile	Phe	Leu	Phe	Ile	Leu	Leu	Cys
1						5			10				15	
Leu	Ile	Phe	Leu	Leu	Val	Leu	Leu	Asp	Tyr	Gln	Gly	Met	Leu	Pro
						20			25				30	
Cys	Pro	Leu	Ile	Xaa										
					35									

(2) INFORMATION FOR SEQ ID NO:258:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:258:

Xaa Leu Arg Arg Phe Ile Ile Phe Leu Phe Ile Leu Leu Cys Leu
1 5 10 15
Ile Phe Leu Leu Val Leu Leu Asp Tyr Gln Gly Met Leu Pro Val Cys
20 25 30
Pro Leu Ile Pro Xaa
35

(2) INFORMATION FOR SEQ ID NO:259:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:259:

Xaa Arg Arg Phe Ile Ile Phe Leu Phe Ile Leu Leu Cys Leu Ile
1 5 10 15
Phe Leu Leu Val Leu Leu Asp Tyr Gln Gly Met Leu Pro Val Cys Pro
20 25 30
Leu Ile Pro Gly Xaa
35

(2) INFORMATION FOR SEQ ID NO:260:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 37 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group."

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 37
(D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:260:

Xaa Arg Phe Ile Ile Phe Leu Phe Ile Leu Leu Cys Leu Ile Phe
1 5 10 15
Leu Leu Val Leu Leu Asp Tyr Gln Gly Met Leu Pro Val Cys Pro Leu
20 25 30
Ile Pro Gly Ser Xaa
35

(2) INFORMATION FOR SEQ ID NO:261:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 37 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group."

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 37
(D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:261:

Xaa Phe Ile Ile Phe Leu Phe Ile Leu Leu Cys Leu Ile Phe Leu
1 5 10 15
Leu Val Leu Leu Asp Tyr Gln Gly Met Leu Pro Val Cys Pro Leu Ile
20 25 30
Gly Gly Ser Ser Xaa
35

(2) INFORMATION FOR SEQ ID NO:262:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 37 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group."

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 37
(D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:262:

Xaa Ile Ile Phe Leu Phe Ile Leu Leu Cys Leu Ile Phe Leu Leu
1 5 10 15
Val Leu Leu Asp Tyr Gln Gly Met Leu Pro Val Cys Pro Leu Ile Pro
20 25 30
Gly Ser Ser Thr Xaa
35

(2) INFORMATION FOR SEQ ID NO:263:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 37 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group."

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 37
(D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:263:

Xaa Ile Phe Leu Phe Ile Leu Leu Cys Leu Ile Phe Leu Leu Val
1 5 10 15
Leu Leu Asp Tyr Gln Gly Met Leu Pro Val Cys Pro Leu Ile Pro Gly
20 25 30
Ser Ser Thr Ser Xaa
35

(2) INFORMATION FOR SEQ ID NO:264:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 37 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

- (ii) MOLECULE TYPE: peptide

- (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 1
 - (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

- (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 37
 - (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:264:

Xaa	Phe	Leu	Phe	Ile	Leu	Leu	Leu	Cys	Leu	Ile	Phe	Leu	Leu	Val	Leu
1								10						15	
Leu	Asp	Tyr	Gln	Gly	Met	Leu	Pro	Val	Cys	Pro	Leu	Ile	Pro	Gly	Ser
								25						30	
Ser	Thr	Ser	Thr	Xaa											
					35										

(2) INFORMATION FOR SEQ ID NO:265:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 37 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS:
 - (D) TOPOLOGY: unknown

- (ii) MOLECULE TYPE: peptide

- (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 1
 - (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

- (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 37
 - (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:265:

Xaa	Leu	Phe	Ile	Leu	Leu	Leu	Cys	Leu	Ile	Phe	Leu	Leu	Val	Leu	Leu
1								10					15		
Asp	Tyr	Gln	Gly	Met	Leu	Pro	Val	Cys	Pro	Leu	Ile	Pro	Gly	Ser	Ser
								25					30		
Thr	Ser	Thr	Gly	Xaa											
					35										

(2) INFORMATION FOR SEQ ID NO:266:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:266:

Xaa	Phe	Ile	Leu	Leu	Leu	Cys	Leu	Ile	Phe	Leu	Leu	Val	Leu	Leu	Asp
1						5				10					15
Tyr	Gln	Gly	Met	Leu	Pro	Val	Cys	Pro	Leu	Ile	Pro	Gly	Ser	Ser	Thr
						20				25					30
Ser	Thr	Gly	Pro	Xaa											
				35											

(2) INFORMATION FOR SEQ ID NO:267:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:267:

Xaa	Ile	Leu	Leu	Leu	Cys	Leu	Ile	Phe	Leu	Leu	Val	Leu	Leu	Asp	Tyr
1						5				10					15
Gln	Gly	Met	Leu	Pro	Val	Cys	Pro	Leu	Ile	Pro	Gly	Ser	Ser	Thr	Ser
						20				25					30
Thr	Gly	Pro	Cys	Xaa											
				35											

(2) INFORMATION FOR SEQ ID NO:268:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:268:

Xaa	Leu	Leu	Leu	Cys	Leu	Ile	Phe	Leu	Leu	Val	Leu	Leu	Asp	Tyr	Gln
1						5			10				15		
Gly	Met	Leu	Pro	Val	Cys	Pro	Leu	Ile	Pro	Gly	Ser	Ser	Thr	Ser	Thr
						20			25				30		
Gly	Pro	Cys	Arg	Xaa											
					35										

(2) INFORMATION FOR SEQ ID NO:269:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:269:

Xaa	Leu	Leu	Cys	Leu	Ile	Phe	Leu	Leu	Val	Leu	Leu	Asp	Tyr	Gln	Gly
1						5			10			15			
Met	Leu	Pro	Val	Cys	Pro	Leu	Ile	Pro	Gly	Ser	Ser	Thr	Ser	Thr	Gly
						20			25			30			
Pro	Cys	Arg	Thr	Xaa											
					35										

(2) INFORMATION FOR SEQ ID NO:270:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:270:

Xaa	Leu	Cys	Leu	Ile	Phe	Leu	Leu	Val	Leu	Leu	Asp	Tyr	Gln	Gly	Met
1					5				10				15		
Leu	Pro	Val	Cys	Pro	Leu	Ile	Pro	Gly	Ser	Ser	Thr	Ser	Thr	Gly	Pro
						20			25				30		
Cys	Arg	Thr	Cys	Xaa											
				35											

(2) INFORMATION FOR SEQ ID NO:271:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:271:

Xaa	Cys	Leu	Ile	Phe	Leu	Leu	Val	Leu	Leu	Asp	Tyr	Gln	Gly	Met	Leu
1					5				10			15			
Pro	Val	Cys	Pro	Leu	Ile	Pro	Gly	Ser	Ser	Thr	Ser	Thr	Gly	Pro	Cys
						20			25				30		
Arg	Thr	Cys	Met	Xaa											
				35											

(2) INFORMATION FOR SEQ ID NO:272:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:272:

Xaa Leu Ile Phe Leu Leu Val Leu Leu Asp Tyr Gln Gly Met Leu Pro
1 5 10 15
Val Cys Pro Leu Ile Pro Gly Ser Ser Thr Ser Thr Gly Pro Cys Arg
20 25 30
Thr Cys Met Thr Xaa
35

(2) INFORMATION FOR SEQ ID NO:273:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 37 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION:/note="Xaa comprises an amino group, an acetyl group, a 9-fluorenylmethoxy-carbonyl group, a hydrophobic group, or a macromolecule carrier group.

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 37
- (D) OTHER INFORMATION:/note="Xaa comprises a carboxyl group, an amido group, a hydrophobic group, or a macromolecular carrier group for an effective period of time so that no infection of the cell by the virus occurs.

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:273:

Xaa Ile Phe Leu Leu Val Leu Leu Asp Tyr Gln Gly Met Leu Pro Val
1 5 10 15
Cys Pro Leu Ile Pro Gly Ser Ser Thr Ser Thr Gly Pro Cys Arg Thr
20 25 30
Cys Met Thr Thr Xaa
35